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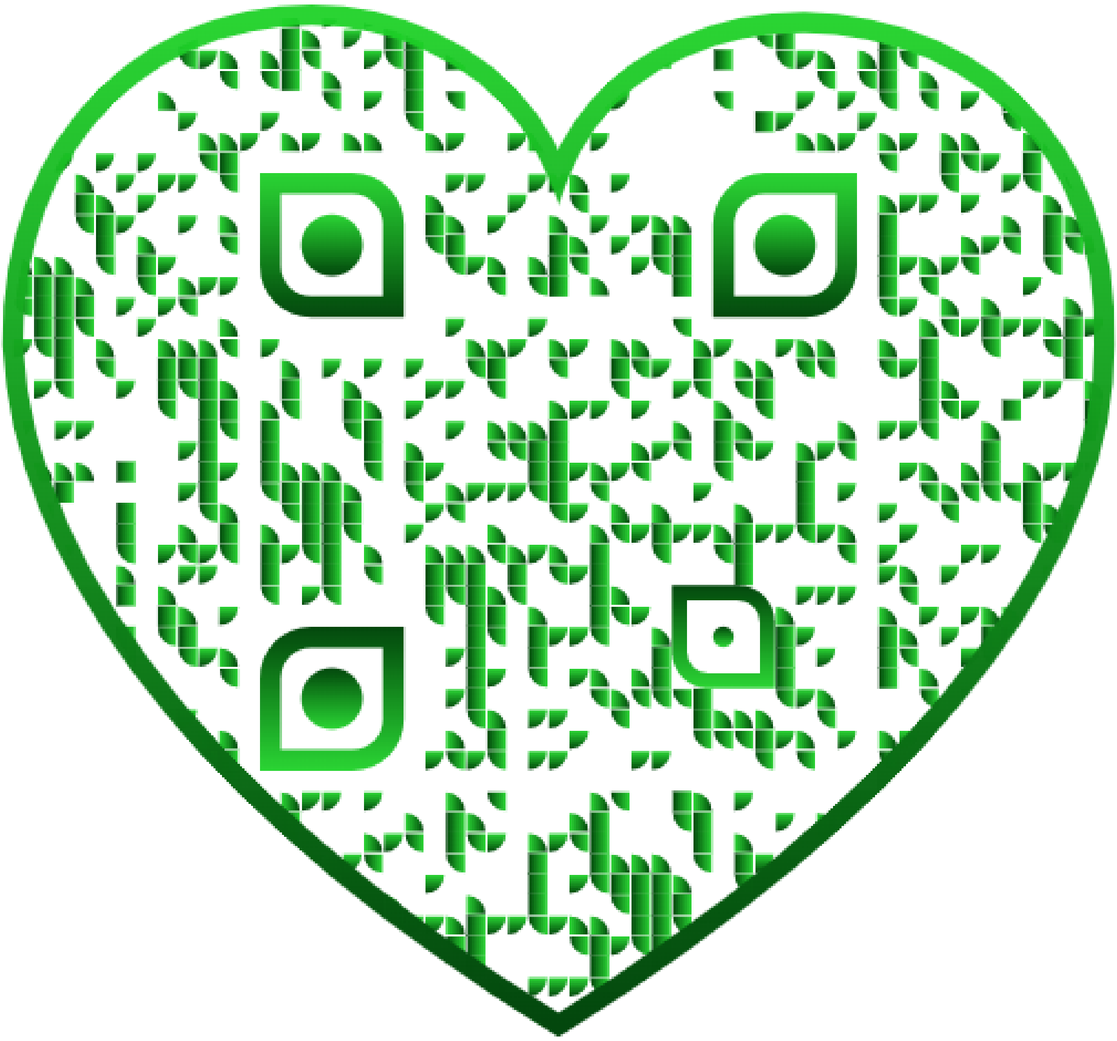

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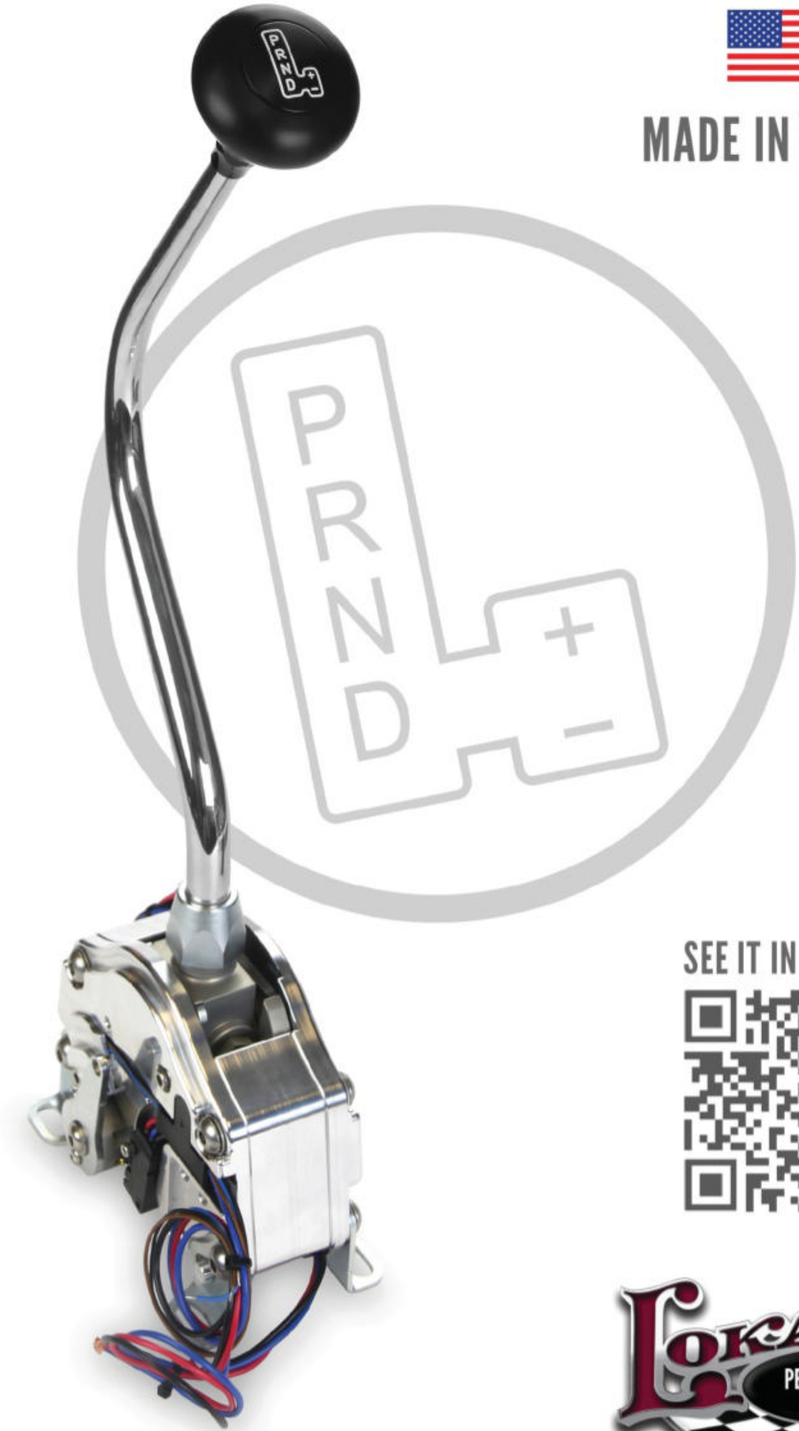

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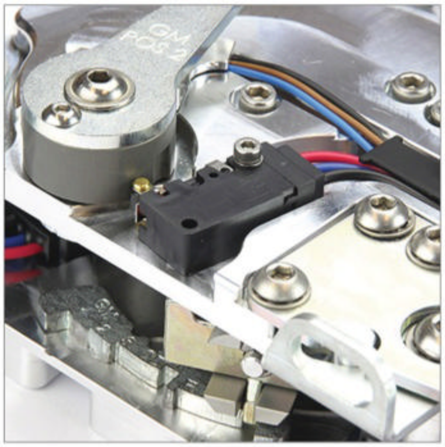

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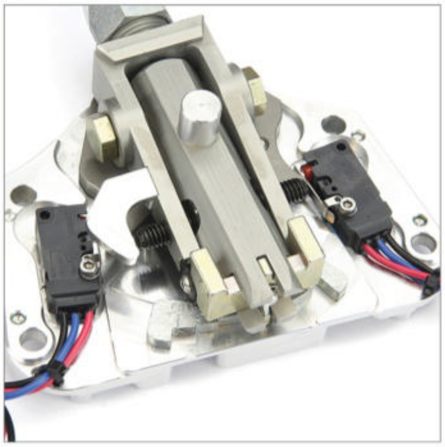

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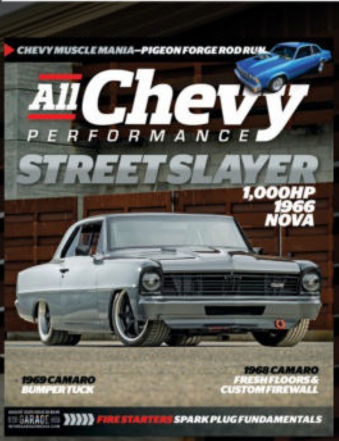
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1,000HP 1966 NOVA
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1968 CAMARO FRESH FLOORS & CUSTOM FIREWALL
FIRE STARTERS SPARK PLUG FUNDAMENTALS

ON THE COVER

With early Novas continuing to gain market share in the classic Chevy muscle car world, there seems to be a lot of one-upping going on with these boxy brawlers. With its 1,000hp LS7, immaculate paintjob, and killer stance, Jeremiah Belk's 1966 rises above on the cover of our Aug. '25 issue. Check out the full feature starting on page 16. Cover image by Fuelish Media.

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FP13-55	1955-57 Chevy Hardtop

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TG13-551	1955-57 Nomad Assembly

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BU13-55R	1955 Rear 3-pc
BU13-551R	1955 Belair Rear Smoothie 1-pc
BU13-562F	1956 Front Smoothie 1-pc
BU13-56R	1956 Rear 3-pc w/Brackets
BU13-563R	1956 Rear Smoothie
BU13-57F	1957 Front 5-pc
BU13-57RS	1957 Rear 3-pc

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TP13-55B	1955 Bezels (pr)
TP13-55H	1955 Housing Dr & Ps
BU13-57T	1957 Assembly (pr)

TRI-FIVE CHEVY FIREWALL

FP13-55F	1955-56 Chevy
FP13-551F	1955-56 Chevy Smoothie
FP13-571F	1957 Chevy Smoothie
FP13-57F	1957 Chevy Firewall

TRI-FIVE CHEVY QUARTER PANELS

QP13-55LOE	55 Hardtop No Holes - Drivers
QP13-55ROE	55 Hardtop No Holes - Pass
QP13-551LOE	55 Conv No Holes - Drivers
QP13-551ROE	55 Conv No Holes - Pass
QP13-552LOE	55 Sedan w/Window - Drivers
QP13-552ROE	55 Sedan w/Window - Pass
QP13-56LOE	56 Hardtop No Holes - Drivers
QP13-56ROE	56 Hardtop No Holes - Pass
QP13-561LOE	56 Conv No Holes - Drivers
QP13-561ROE	56 Conv No Holes - Pass
QP13-562LOE	56 Sedan w/Window - Dr*
QP13-562ROE	56 Sedan w/Window - Ps*
QP13-57LOE	57 Hardtop w/Holes - Drivers
QP13-57ROE	57 Hardtop w/Holes - Pass
QP13-571LOE	57 Conv w/Holes - Drivers
QP13-571ROE	57 Conv w/Holes - Pass
QP13-572LOE	57 Sedan w/Window - Driver
QP13-572ROE	57 Sedan w/Window - Pass

* COMING SOON!

TRI-FIVE CHEVY FLOOR BRACE PATCH

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FP13-55CBR	1955-57 Long Center - Ps

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CHEVY57SEDAN	1957 Sedan
CHEVY57CONV	1957 Convertible

TRI-FIVE CHEVY DOOR SHELLS

DO13-55L	55-57 2-Dr Sedan - Drivers
DO13-55R	55-57 2-Dr Sedan -Pass
DO13-551L	55 & 57 2-Dr Hardtop - Drivers
DO13-551R	55 & 57 2-Dr Hardtop - Pass
DO13-56L	56 2-Dr Hardtop* - Drivers
DO13-56R	56 2-Dr Hardtop* - Pass
DO13-552L	55-57 2-Dr Convertible - Drivers
DO13-552R	55-57 2-Dr Convertible - Pass
DO13-555L	55-57 Nomad - Drivers
DO13-555R	55-57 Nomad - Pass

* with Bel Air Trim Holes

TRI-FIVE CHEVY WINDSHIELD GARNISH MOLDING

Bel Air/210 2-Door Hardtop/Nomad

WS13-55GPC	Garnish Molding -Chrome
WS13-55GP	Garnish Molding - Painted

TRI-FIVE CHEVY FENDERS

FE13-55L	1955 Chevy - Drivers
FE13-55R	1955 Chevy - Pass
FE13-56L	1956 Chevy - Drivers
FE13-56R	1956 Chevy - Pass
FE13-57L	1957 150 w/o Holes - Drivers
FE13-57R	1957 150 w/o Holes - Pass
FE13-571L	1957 210 & BelAir w/Holes - Dr
FE13-571R	1957 210 & BelAir w/Holes - Ps

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BY **NICK LICATA**

WHEELS OF FORTUNE

It's been said "imitation is the sincerest form of flattery," and when we borrow certain aspects of a car we'd like to tie into our own build, many of us tend to reach back to a certain car that impacted our lives at a young age. We then take that image and combine it with a car we've seen more recently, then integrate those ideas into a build that is likely to have a look and style all its own. Typically, no one would be inclined to build a car exactly like someone else's, unless said build is paying homage to a historical vehicle, such as a Yenko Camaro or Grand Sport Corvette, built with the exact color, stripes, and graphics, while utilizing period-correct or similar wheels and tires with the intentions of making the car look as close to the original as possible. Beyond that, it's rare to come across two cars of the same model and year with exact features. While some cars might look familiar, most custom restomods feature a design that's uniquely tailored to the owner's personal taste and vision.

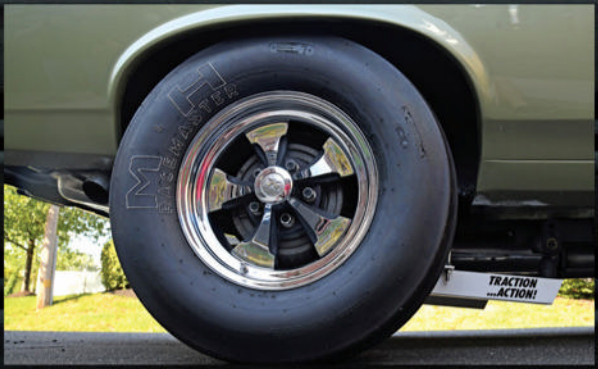
Back in the '60s and early '70s wheel options were limited, which meant many hot rods and muscle cars had a similar look, one that many builders today use as a template due to its timeless hot rod look. But during the '80s, '90s, and early '00s, build style and especially wheels went through, let's say, a series of "trendy" or "experimental" phases—many of which were tasteless and simply unattractive.

As time moved on, wheels gradually got larger in diameter and 18-inchers became the norm, but not everyone was on board. Old-school hot rodders refused to conform to using these "massive," modern-size wheels, but eventually even the most hardcore vintage muscle car guys came around and warmed up to the idea of using 18-, 19-, and even 20-inch wheels. With the right design and proper fitment between the fenders and quarter-panels, big rollers give even the most docile hot rod a more aggressive demeanor. Yes, we can agree to disagree on this.

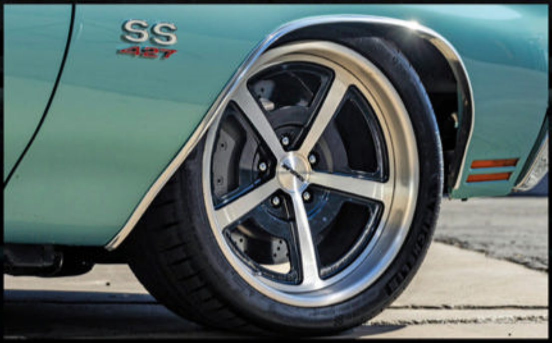
As we move forward in the classic muscle car world, I've recently noticed builds pivoting back to the roots of the muscle car era by utilizing factory-appearing rally or SS wheels built by aftermarket wheel companies in modern sizes. This combination is ideal for giving a classic muscle car a somewhat authentic look that coincides with a car's born-on date yet offering modern handling and performance while allowing the use of modern, big disc brake systems. If you've ever driven a vintage car with factory brakes then you know firsthand about the panic that sets in when you mash the brake pedal in an emergency situation and braking distance and lateral pull becomes uncertain.

I'm all about progress, so if that means borrowing from the past to make room for the future of our hobby, count me in. But at the same time, if historical accuracy is an important aspect of your ride, then you do you and bolt on those 15-inch Keystone Klassics, Cragar S/S, or American Torq Thrusts wheels, and keep that authentic hot rod vibe alive, just remember to upgrade that vintage braking system.

You in?



▶ The 15-inch Keystone Klassics were a staple of the mag wheel craze that took place in the '60s and '70s, giving street cars that drag race–inspired look.



◀ Companies like Forgeline are now making old-school-inspired wheels in modern sizes, like this FL500 that resembles a 1969 GM SS wheel.

I want to hear from you! Send an email to **nlicata@inthegaragemedia.com**.

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Beauty or Beast? ARP Has You Covered

Major show winners and NHRA World Champions have one thing in common: ARP fasteners!

The 1959 Chevy Impala of Dave and Robin Rush, winner of last year's Slonaker award at the Grand National Roadster Show certainly qualifies as a "Beauty." Conversely, the Camaro Pro Stocker piloted by Greg Anderson to the NHRA World Championship is clearly a "Beast."

Both the team at Steve Cook Creations, who built the "Bespoke" Impala, and the KB Titan horsepower merchants rely extensively on ARP fasteners. Simply stated, ARP manufactures the finest high performance bolts and studs money can buy. Why settle for anything less than the best?

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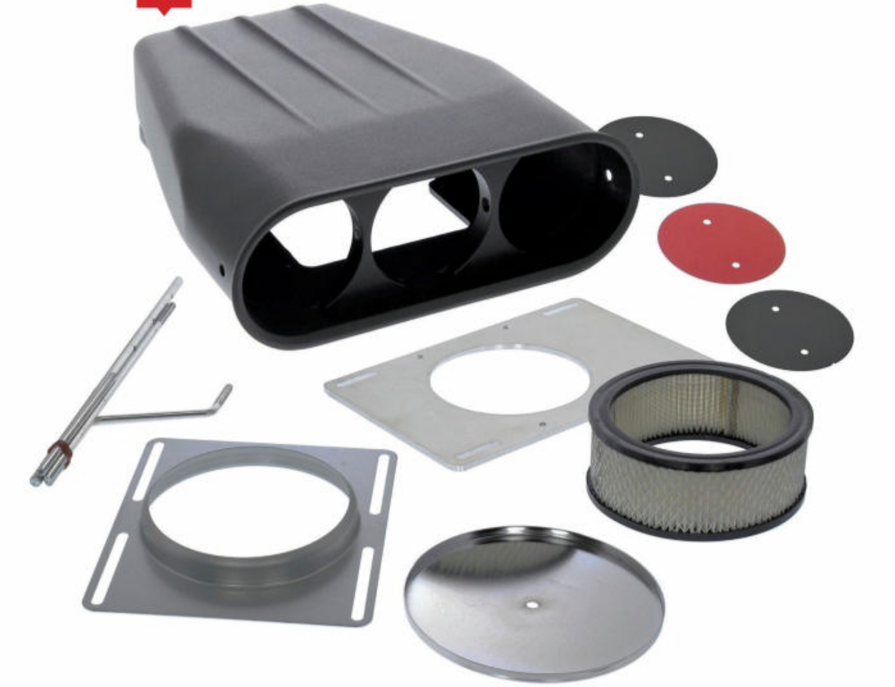

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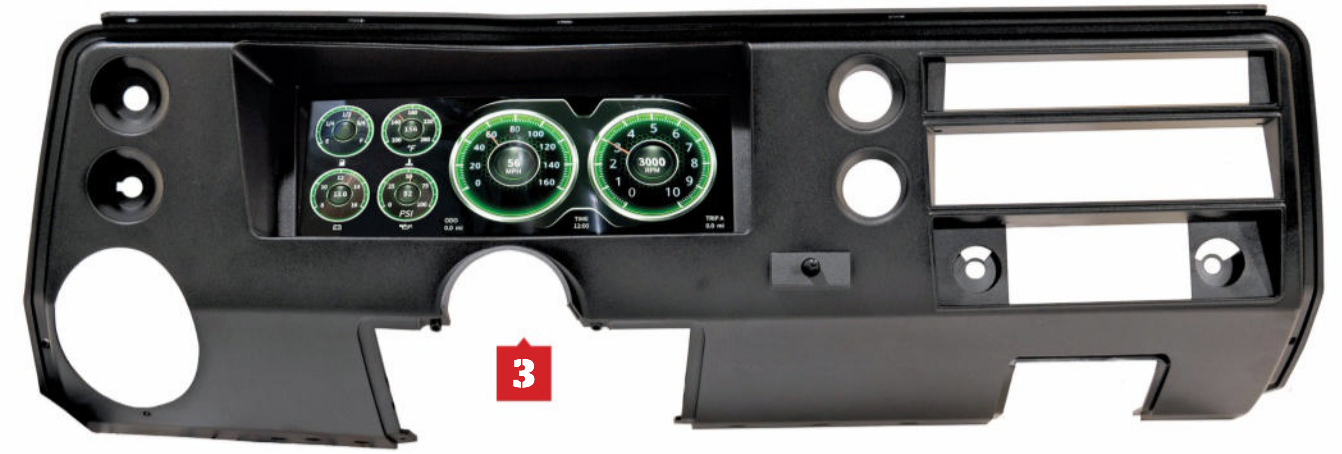

3

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3. INVISION

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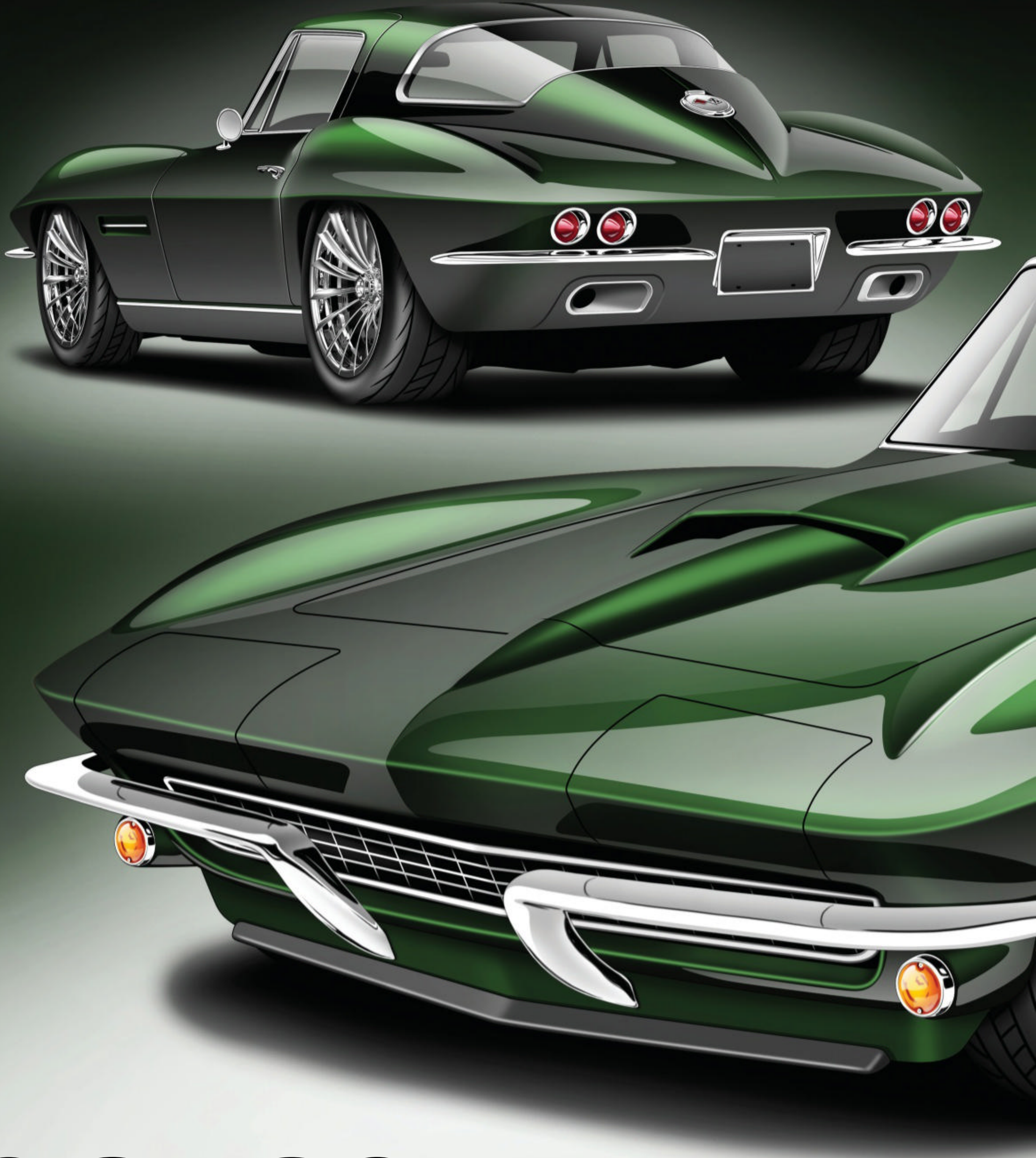

1967 CORVETTE

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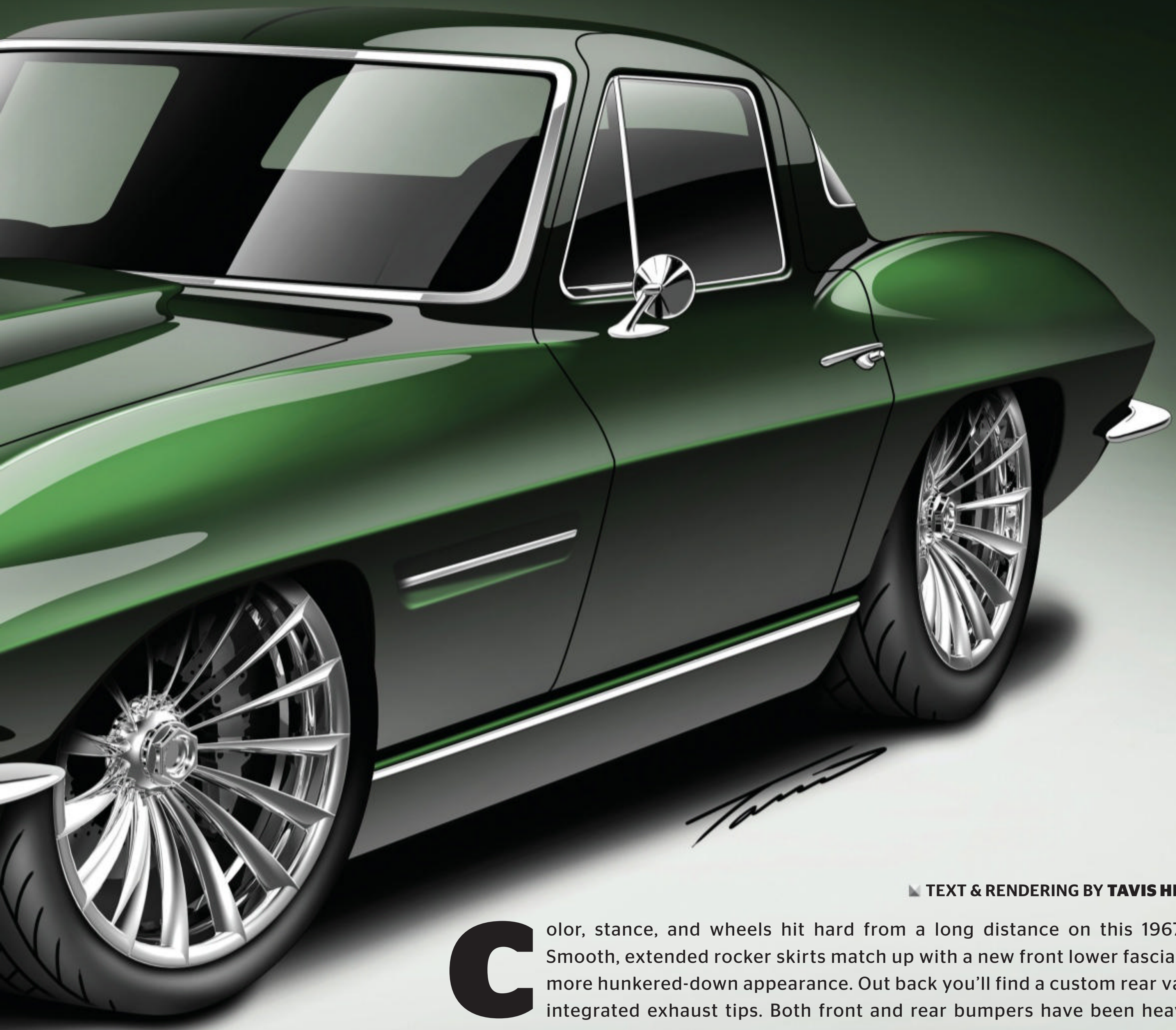

TEXT & RENDERING BY **TAVIS HIGHLANDER**

Color, stance, and wheels hit hard from a long distance on this 1967 Corvette. Smooth, extended rocker skirts match up with a new front lower fascia to create a more hunkered-down appearance. Out back you'll find a custom rear valance with integrated exhaust tips. Both front and rear bumpers have been heavily tucked in and shaped to fit the body. The rear bumpers have been especially reshaped from stock with only horizontal elements remaining. The factory fender gills have been replaced with a small vent and polished trim. Around the car you'll find that polished bits of trim have been retained or created to add some elegance to the car. Dark Jade Green metallic paint definitely highlights all that brightwork. ACP

BY **FUELISH MEDIA** IMAGES BY **THE AUTHOR**

SLICK 66

A DREAM NOVA WITH ALL THE TRICKS

Have you ever heard someone say, “I’m going to build my dream car someday”? Of course you have—we’ve all heard and even said it before. The real question is, how many of these folks (ourselves included) have lived up to that statement? Most of us can locate and buy the model vehicle we want, only to spend an entire lifetime slowly chipping away at achieving the dream. Very few people actually build these “dream vehicles” up to world-class status—but when they do, it sure is a sight to behold.

Jeremiah Belk of Spring, Texas, has always been a fan of the second-gen Nova. It wasn’t until he had the means to build a car worth bragging about that he was able to forge ahead on his journey. “I was inspired by my late Uncle Bryan,” Jeremiah says. “He had a 1966 Chevelle that I grew up working on and playing with, so I naturally fell in love with Chevrolet muscle cars.”

While Jeremiah already knew the exact car he wanted to build, being able to pay for it presented the issue many of us are already familiar with. “My first 1966 Nova was a post car, but I sold it back in 2015 to fund the startup of my oil field distribution company, Total Depth Tools,” he states. “Once business started taking off, I finally had extra funds to acquire another 1966 Nova from my uncle’s lifelong friend, Tom Henline. [Henline] had owned this car since 1994 and I was able to buy it from him in 2017. It was originally set up as a Pro Street car with a hot stroker engine, but I wanted to do something different. I ordered a Roadster Shop chassis, a Wegner 427, a Bowler-prepped T-56, and shipped my Nova off to Driven Speed Shop in Gilbert, Arizona, to get started on the build I had always fantasized.”

Mikey Dascoli at Driven served as the main contact point and main builder of Jeremiah's Nova. The first portion of the project was to remove the factory frame from the body and prep the Roadster Shop Fast Track chassis for assembly. Obviously, the new frame is designed for high-performance cars, which this Nova was quicky becoming. Once the frame was together, Dascoli dropped the Wegner LS7 engine between the 'rails and then custom built an impressive dual-sided air cleaner system, 3-inch headers, and an exhaust setup to boost the horsepower. Also helping in that department is a Whipple supercharger that Jeremiah was all-too excited about when he purchased it. That T-56 transmission from Bowler was soon mated to the 427 to complete an exhilarating drivetrain situation.

While all this work was being handled, the Nova’s shell was given a full body massage at Kandy Shop Creations in nearby Mesa, Arizona. It was here that all panels were straightened out and given some custom attention in the way of a smoothed and raised cowl, tucked bumpers, deleted trim and driprails, the body line being matched into the front bumper, flush-mounted glass, and a full custom dashboard. PPG Audi Daytona Pearl paint was then applied to the shell. Dascoli then took control of the reassembly process by adding his own custom grille, Dapper Lighting LED headlights, and Fesler taillights to properly update each end.

The interior then received a complete overhaul that now features a 1½-inch DOM rollbar setup, and two-tone, leather-covered TMI seats, dash, and panels by Sew Cal Rods, in Ontario, California. A Holley Pro Dash displays the car’s vitals, and a booming sound system featuring Morel and JL Audio components makes for exciting playback of Jeremiah’s favorite jams. Of course, a Vintage Air climate-control system was a must-add to help beat the sweltering Texas summer heat.

“Seeing the car complete for the first time in 2024 when we unveiled it at Triple Crown of Rodding in Nashville was the best experience by far,” Jeremiah admits. “Even though [Dascoli] handled the entire build, a car of this caliber takes dedication from the builder and car owner with time and financial obligations on the line. The project took a little over four years to complete, but, man, it was worth the wait!”

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TECH ✓

OWNER: Jeremiah Belk, Spring, Texas
VEHICLE: 1966 Chevrolet Nova

Engine

TYPE: Chevrolet LS7
DISPLACEMENT: 427 ci
ROTATING ASSEMBLY: Mahle pistons, Callies Ultra connecting rods, and Callies crankshaft
CYLINDER HEADS: Wegner Motorsports CNC-ported LS3 heads
CAMSHAFT: Callies DragonSlayer
INDUCTION: Whipple 2.9L supercharger, custom air cleaner by Mikey Dascoli at Driven Speed Shop (Gilbert, AZ)
COOLING: Autorad radiator with electric fans
ASSEMBLY: Wegner Motorsports (Markesan, WI)
EXHAUST: Custom exhaust and headers by Driven Speed Shop, Borla Pro XS mufflers
DRESS UP: Wegner front accessory drive, Ringbrothers hood hinges
OUTPUT: 1,000 hp, 900 lb-ft

Drivetrain

TRANSMISSION: Bowler-prepped T-56
REAR AXLE: Strange Engineering 9-inch with 35-spline axles and 3.70 gears

Chassis

CHASSIS: Roadster Shop Fast Track chassis
FRONT SUSPENSION: Independent with coilovers
REAR SUSPENSION: Four-link with coilover shocks
BRAKES: Baer 14-inch rotors, six-piston calipers, Tilton master cylinder

Wheels & Tires

WHEELS: 18- and 19-inch Forgeline CV3C wheels
TIRES: 255/35R18 and 325/30R19 Michelin Pilot Sport

Interior

UPHOLSTERY: Leather upholstery by Sew Cal Rods (Ontario, CA)
SEATS: TMI
DASH: Custom
STEERING: Sparc Industries wheel
INSTRUMENTATION: Holley Pro Dash
PEDALS: Tilton
CLIMATE CONTROL: Vintage Air with Restomod Air vents
SAFETY: Custom rollcage
ENTERTAINMENT SYSTEM: Pioneer head unit, Morel speakers, JL Audio amps and subwoofer

Exterior

BODYWORK & PAINT: PPG Audi Daytona Pearl by Kandy Shop Creations (Mesa, AZ)
GRILLE: Driven Speed Shop
BUMPERS: Driven Speed Shop
HEADLIGHTS: Dapper Lighting LED 7
MIRRORS: Ringbrothers
BODY MODS: Smooth and raised cowl, tucked bumpers, deleted trim, shaved driprails, body line continued to front bumper, flush-mount glass

FINER FIT

TUCKING THE BUMPERS ON A 1969 CAMARO

BY **TONY THACKER** ◆ IMAGES BY **THE AUTHOR**

Bumpers are not something typically high on the build priority list, but if you're building any kind of custom or street machine, or even a hot rod, you really need the bumpers tucked to fit perfectly and certainly tighter than factory.

Recently, while touring Mick's Paint in Pomona, California, we came across Jeff Pont's 1969 Camaro that was undergoing a complete makeover from front to rear bumper. Now, Pont's a detail guy so he likes things to fit, and fit better 'n' factory, and the stock bumpers were just not cutting it. Stepping up to the task was Pauly Rivera, Mick's crafty fabricator, to make the factory bumpers fit, well, like they should have from the factory with no visible fasteners. In this case, the bumpers were eventually to be painted body color and not chrome plated. Were they to have been chromed, then a whole lot more finish work would have been necessary.

Nevertheless, this is a relatively easy modification but something that takes time and patience to get right.

1.

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1. Jeff Pont's 1969 Camaro is shown here prior to painting and out of sequence when fabricator Pauly Rivera had installed the front bumper to check fit. It fit like it came from the factory, which was not good enough for Pont or Mick's Paint.

2. The bumpers were actually tucked before the car was stripped for repaint. Even though it's going to get repainted, Rivera protected the surrounding area with masking tape.

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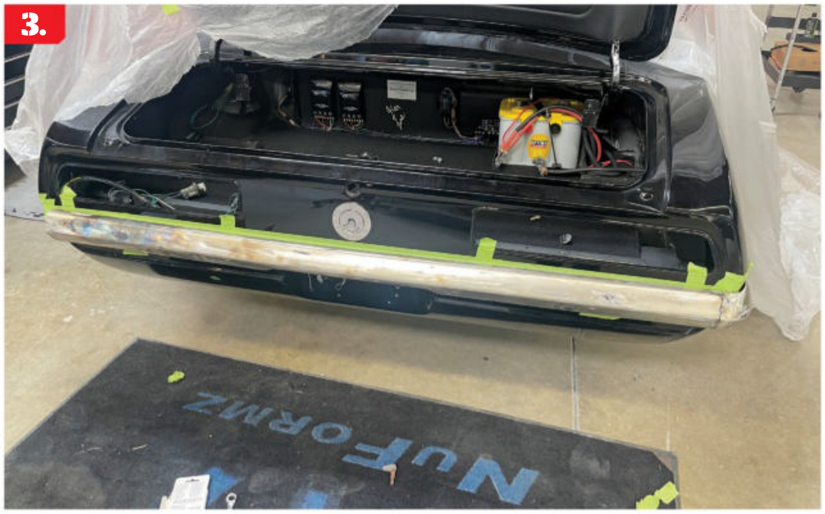

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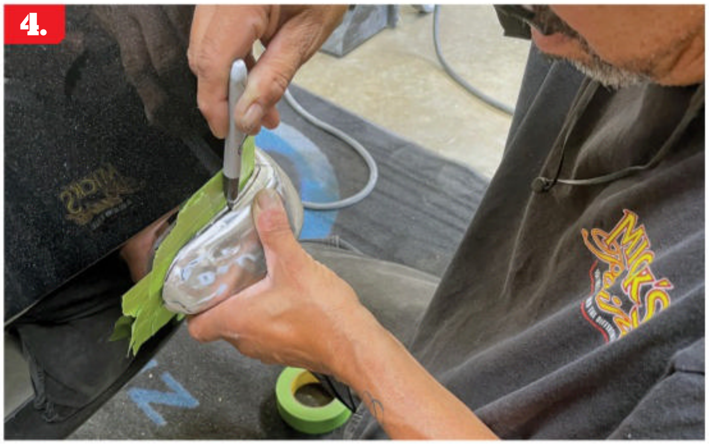


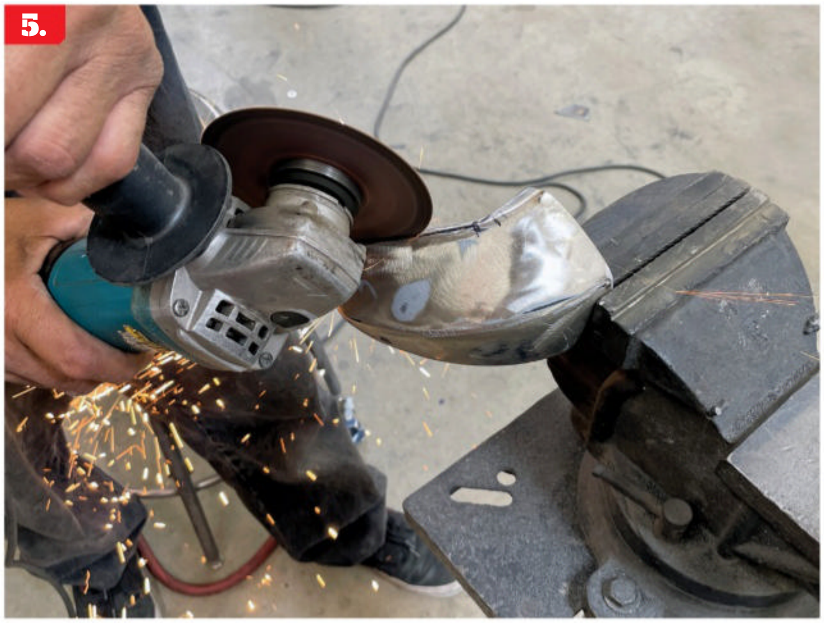
3. You can see here that the rear bumper has had its stock mounting boltholes filled and is being test-fitted. Note that the righthand corner has already been tacked into position and Rivera is working on the left corner.

4. Rivera used a permanent marker to mark the lefthand bumper end so that it could be recontoured to follow the line of the body.

5. After marking, the bumper end was put in a vise, then Rivera used an angle grinder to remove the excess material.

6. Some back and forth trial and error was necessary to shape the bumper end to precisely follow the contour of the rear fender.

5.



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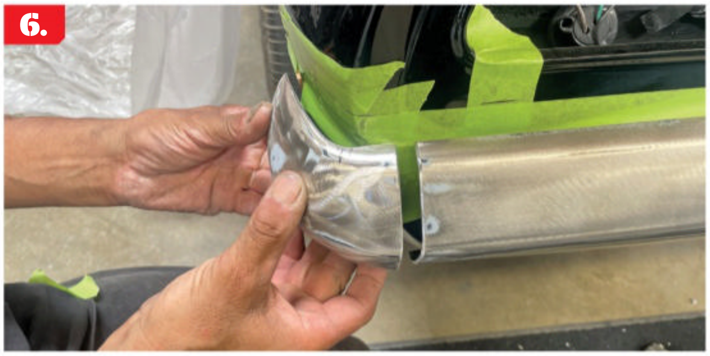

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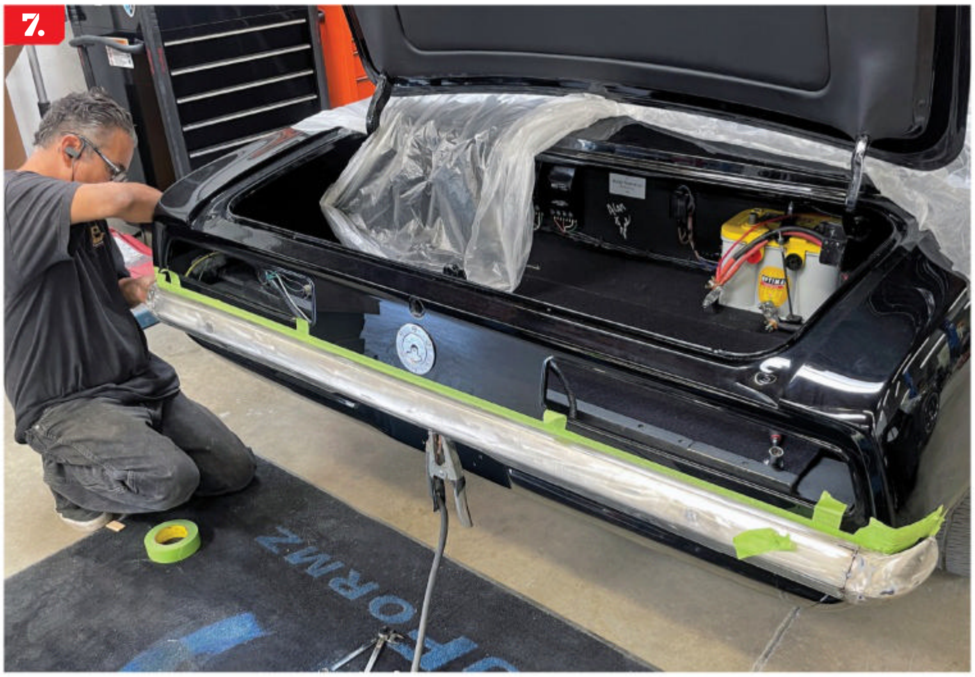
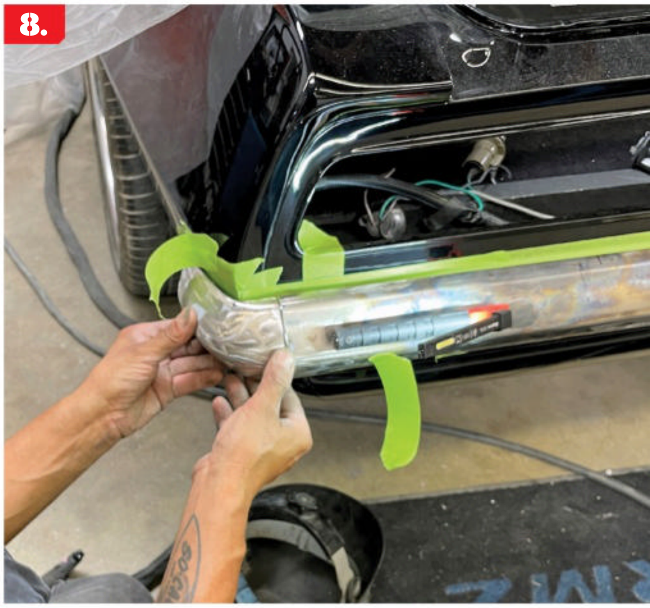


7. The rear bumper was more of a problem than the front, as from the factory it ran downhill to the right. Note the battery disconnect before any welding was carried out.

8. You can see by the tacks that Rivera had trial-fitted the end but didn't like it the first time, so he gave it another go. The device attached to the bumper is a light so that he could see exactly what was going on.

8.



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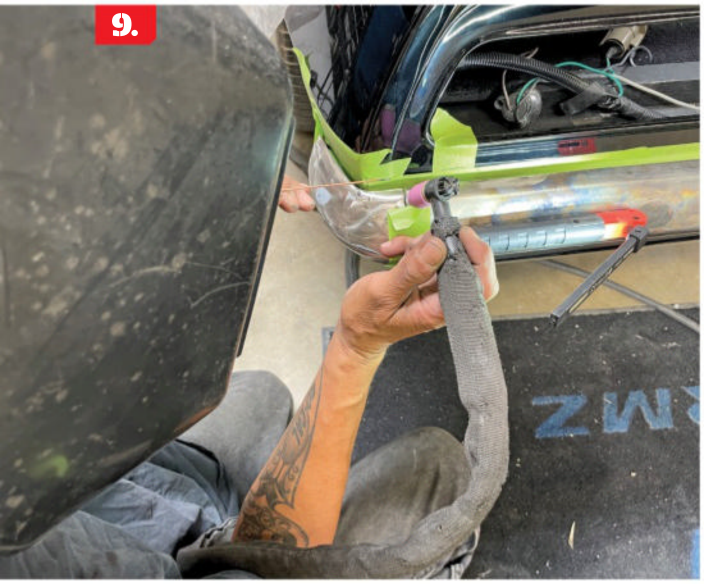


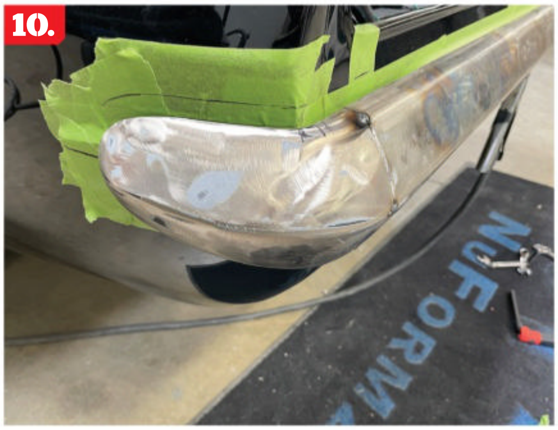
9. Finally, in a position where he liked it, Rivera tack-welded the end onto the bumper using a Tungsten Inert Gas (TIG) welder that creates a precise, high-quality weld.

10. With the bumper tacked into position, Rivera stood back and gave a good look to make sure that everything was aligned. It's important the ear does not point up or down.

11. To keep the bumper from warping before finish welding, Rivera tacked-welded the assembly to a length of heavy-wall, box-section steel that was tacked to his steel bench.

12. You can see here that Rivera neatly TIG-welded the bumper end, but it still needed to be ground and finished.

10.



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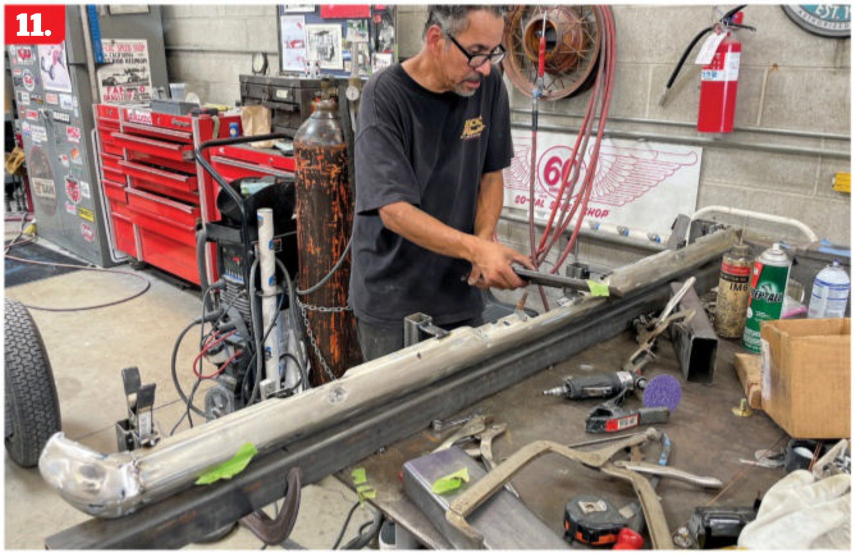

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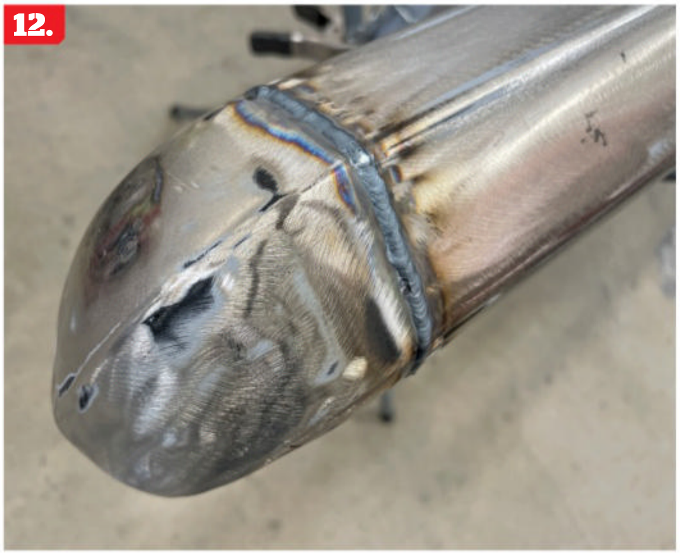

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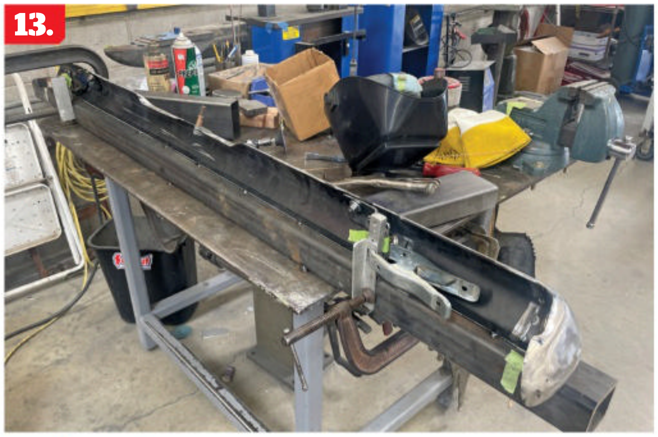

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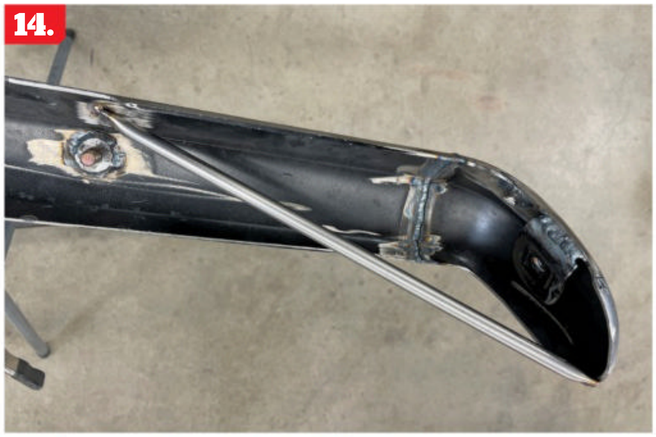

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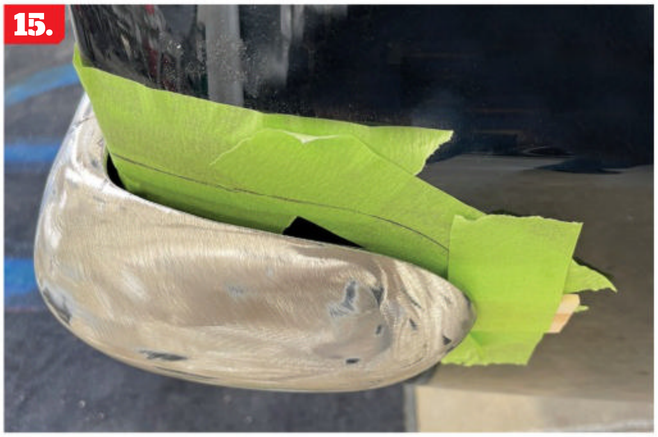

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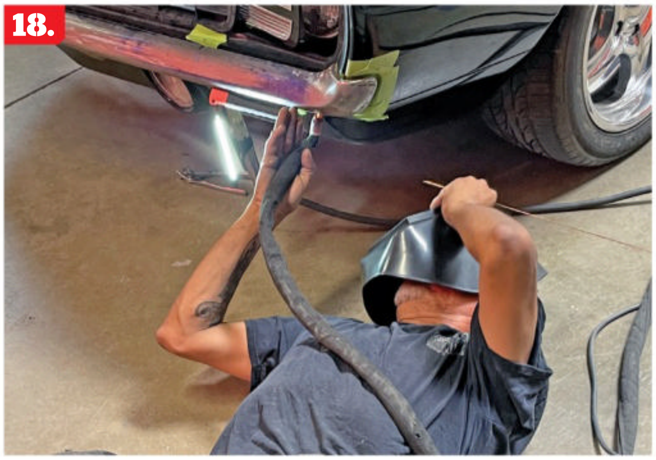

19.

20.

13. The bumper end had yet to be TIG-welded on the back side, so this view of the fixture shows that Rivera was about to work on the bumper mounting hardware.

14. To prevent the bumper end from warping, a temporary tubular brace was installed to hold it while welding on the mounting hardware that will be out of view.

15. Here, the bumper end has been finished-welded and ground smooth so that it follows the line that Rivera had previously marked on the tape as being optimum.

16. A similar procedure was followed for the front bumper, which needed a lot of work in the center and at the ends due to the poor factory fit.

17. For the bumper ends to closely follow the body, Rivera had to do quite a bit of cutting and reshaping.

18. Here you can clearly see that Rivera massed the front bumper ends to closely follow the contour of the front fenders.

19. Once Rivera was happy with the shape, fitment, and the new invisible mounting system, the bumpers moved over to the paint shop where they were given a shot of PPG primer-sealer.

20. The bumpers were painted to match Pont's car using PPG Jet Black. Note: This is the out-of-the-gun finish, and the bumpers have not yet been flatted and polished.

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21. Now that's how they should fit, but it's doubtful that the factory was that concerned with such tight tolerances in 1969.

22. This close-up shows how Rivera fixed the rear bumper so as not to run downhill at the right, ensuring the end flows with the body and there are no visible fittings.

23. Here you can see the ends of the front bumper are tucked in and carefully shaped to match the body as they should have been from the factory.

24. Shop manager Marco Piehl fit checks the painted front bumper before it is finally installed using Rivera's hidden mounting hardware. It now looks way better than it did when it left the factory.

24.

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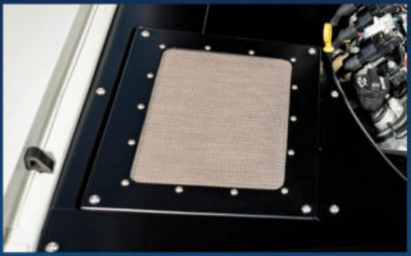
FABBED & REHABBED

When it comes to building a specialized vehicle designed to go fast and handle like a dream, a unique set of skills is required. A builder must not only be able to gather the right group of components to get the job done but also know how to fine-tune them to create a harmoniously functioning machine. What can't be bought must be made, and what doesn't fit must be strategically formed to put all the pieces together.

Rob Lindsay is one such custom vehicle builder who knows how to assemble a custom and capable automobile, and he understands what it takes to make it perform at the highest level possible. While Rob is well-versed in fabricating high-end off-road prerunner chassis systems, he can also get down in the performance and race arena, too. Naturally, he dabbles in the world of Pro Touring muscle cars as well, which is why we are all gathered here today.

Rob sees a lot of different types of vehicles come through the doors of his shop, RJ Fabrication in Hesperia, California, and the stories he hears from customers regarding the conditions of their cars never cease to amaze him. Recently, a gentleman by the name of Troy Nottingham came to him with the tale of a 1964 Chevelle that was given to him when he graduated high school. Now, all Troy had was his story since his car, which had been sitting in his backyard for roughly 16 years, had been torn down years ago and was reduced to pieces scattered between multiple crates and boxes. While a predicament such as this could scare off a builder with a faint heart, it was just another day in the office for Rob and his crew.

A **1964** CHEVELLE RESURRECTED BY RJ FABRICATION



All Troy wanted for his Chevelle was for it to be a “good, reliable cruiser that could do everything well.” That might seem like a vague wish list to go by, but that’s all Lindsay needed to hear before kicking the project into high gear. The customer base that comes to RJ Fabrication usually gravitates toward Lindsay’s brand of customization style, and Troy was no exception.

With the car in such tattered disrepair, Lindsay felt it best to start at ground-level by first affixing Detroit Speed and QA1 suspension components to the front section of the original chassis. At the rear, Lindsay created a one-off frame from the A-pillar back and selected a Detroit Speed triangulated QUADRALink and QA1 springs and JRi double-adjustable shocks to make for an ultra-responsive ride quality. Fresh Wilwood braking products and staggered sets of Budnik wheels with Michelin Pilot Sport rubber finalized the suspension overhaul.

Next, Rob turned his attention to powering the Chevelle with a modern engine and transmission combo. What he landed on was a 2018 GM LS3 and 4L70E. A custom set of RJ Fabrication headers were attached to the car’s new powerplant, along with a dual exhaust system that was channeled through the frame and paired with Flowmaster 40-Series mufflers. A Ron Davis aluminum radiator and SPAL fan keeps the LS3 cool, and a Vintage Air Front Runner accessory drive system dresses up the engine while allowing it to perform at peak operation. Once the dust settled, the horsepower count of the LS3 hovered right around 525 with 489 lb-ft of torque—quite a bit more muscle than Troy was used to, but was ready to embrace.

To help keep the progress rolling, the crew at RJ Fabrication replaced the quarter-panels, hand made new taillight housings, raised the floor 3 inches, and expertly fabricated custom wheeltubs. Then, ASEN Auto, also in Hesperia, teamed up with Lindsay to handle the bodywork and paint portion of the build. Once those one-off touches were complete, the crew at ASEN sprayed a custom shade of white Valspar paint with Phantom Pearl and finished the car off with new Dapper Lighting headlight housings for a modern spin on an OEM appearance.

The interior received new Procar by Scat seats covered in beige and black Alcantara material by Rudy's Custom Upholstery. The dash, door panels, and center console were also finished with the same Alcantara upholstery before it was stuffed with Speedhut gauges, an Alpine head unit, and Vintage Air vents and control panel to adjust the temperature inside the car. The sound system was then rounded off with Rockford Fosgate speakers, amplifiers, and a custom subwoofer box crafted by Carlos at Art of Sound in nearby Upland, California. This was all plugged into the wiring done by Jax Motorsports in Upland.

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In what seemed like no time, Lindsay was able to produce a version of a Chevelle that its owner hardly thought possible. The car once rotting away under the elements in his backyard was now sitting in front of Troy as if it was a mirage—a vision that could now physically rev up and go! With the proposal for the rehab process modest at best, Lindsay was easily able to over-deliver for his customer. This ’64 is not only capable of running and driving—it now breaks necks and racks up trophies and accolades with every appearance it makes at show ’n’ shines and track days far and wide.

TECH

OWNER: Troy Nottingham
VEHICLE: 1964 Chevrolet Chevelle
BUILDER: RJ Fabrication

Engine

TYPE: Chevrolet Performance LS3
DISPLACEMENT: 376 ci
CYLINDER HEADS: GM
CAMSHAFT: GM
INDUCTION: GM with dual K&N filters
ASSEMBLY: RJ Fabrication
EXHAUST: RJ Fabrication 1$^{7}/_{8}$- to 3-inch headers, 3-inch dual exhaust, Flowmaster 40-Series mufflers
DRESS UP: Vintage Air Front Runner accessory drive system, Eddie Motorsport hood hinges
FUEL TANK: Aluminum custom 55-gallon

Drivetrain

TRANSMISSION: GM 4L70E
DRIVESHAFT: Chromoly 3.5-inch by Hi Desert Driveline (Hesperia, CA)
REAR AXLE: Strange Engineering 12-bolt rearend, Eaton Truetrac posi, 35-spline axles

Chassis

CHASSIS: GM front/custom frame from A-pillar back by RJ Fabrication
FRONT SUSPENSION: Detroit Speed 2-inch drop spindles, 1½-inch tubular control arms, 1$^{3}/_{8}$-inch antiroll bar, UniSteer steering rack, QA1 springs, JRI double-adjustable shocks
REAR SUSPENSION: Detroit Speed QUADRALink, QA1 springs, JRi double-adjustable shocks.
BRAKES: Wilwood 14-inch rotors front and rear, Aero6 front and Aero4 rear calipers

Wheels & Tires

WHEELS: 18x9 and 19x12 Budnik Pivot wheels
TIRES: 265/40R18 and 345/20R19 Michelin Pilot Sport

Interior

UPHOLSTERY: Beige and black Alcantara material by Rudy’s Custom Upholstery (Hesperia, CA)
SEATS: Procar by Scat low-backs
STEERING: Ididit column, Budnik steering wheel
INSTRUMENTATION: Speedhut
SHIFTER: Custom

Exterior

BODYWORK & PAINT: ASEN Auto (Hesperia, CA)
PAINT: Valspar custom whites with Phantom pearl
HOOD: OER
GRILLE: OER

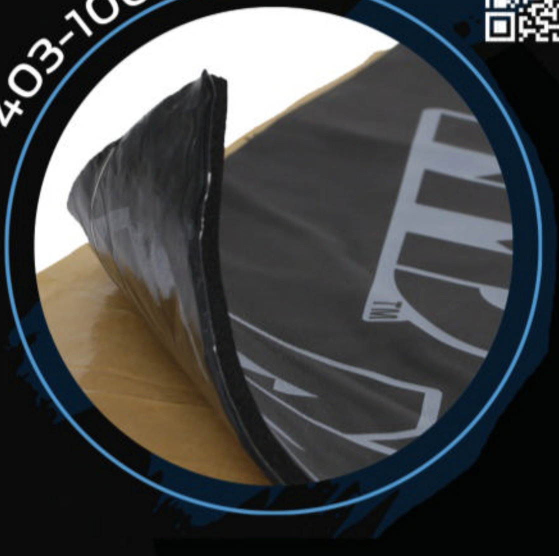
CALIFORNIA
M267NO

SilentDrivePRO
PT# 403-100-825A

888·255·3485

403-1000-825B

403-1000-857



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AMD's new SilentDrive Pro Mat Sound Deadener offers premium noise reduction with three different versions to suit various needs. Two of the variants feature a 2mm thickness, with one showcasing blue lettering and the other white lettering for aesthetic preferences. For those seeking enhanced sound insulation, a thicker 7mm option is available. Each box includes 10 sheets, covering a total of 43 square feet, making it an excellent solution for reducing vibrations and road noise in vehicles or other applications requiring soundproofing.

SPARK PLUG FUNDAMENTALS

THERE'S MORE TO THESE SIMPLE COMPONENTS THAN LIGHTING A FIRE

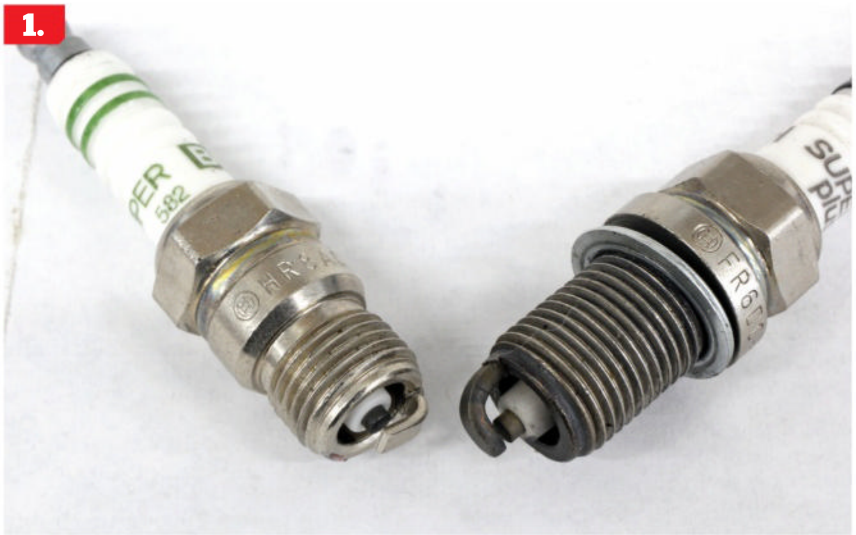
BY **JEFF SMITH** IMAGES BY **THE AUTHOR**

The spark plug is the one component that has been shared by every spark-ignited internal combustion engine since the earliest days. Oddly, the engine that powered the first Wright Brothers airplane was gasoline-fueled but did not use spark plugs. Instead, the engine builder, Charlie Taylor, employed a set of contact points located in the "T"-style cylinder head to create a spark. But for the rest of the automotive world, the spark plug has been in existence in one form or another since the 1860s.

Today, spark plugs have become smaller, more efficient, and now in modern electronically fuel-injected street engines can perform admirably for 100,000 miles or more. But what happens when we build a performance engine like a small- or big-block Chevy or an LS/LT engine with compression, a bigger camshaft, and better cylinder heads? Selecting the proper spark plug becomes a critical process, which is what we will address in this story.

The first step would be to identify the proper construction of the spark plug for your application. This starts by identifying the plug's basic configuration. The first issue is what the spark plug manufacturers call thread reach. This is the length of the threaded portion of the spark plug where it engages the cylinder head.

1.



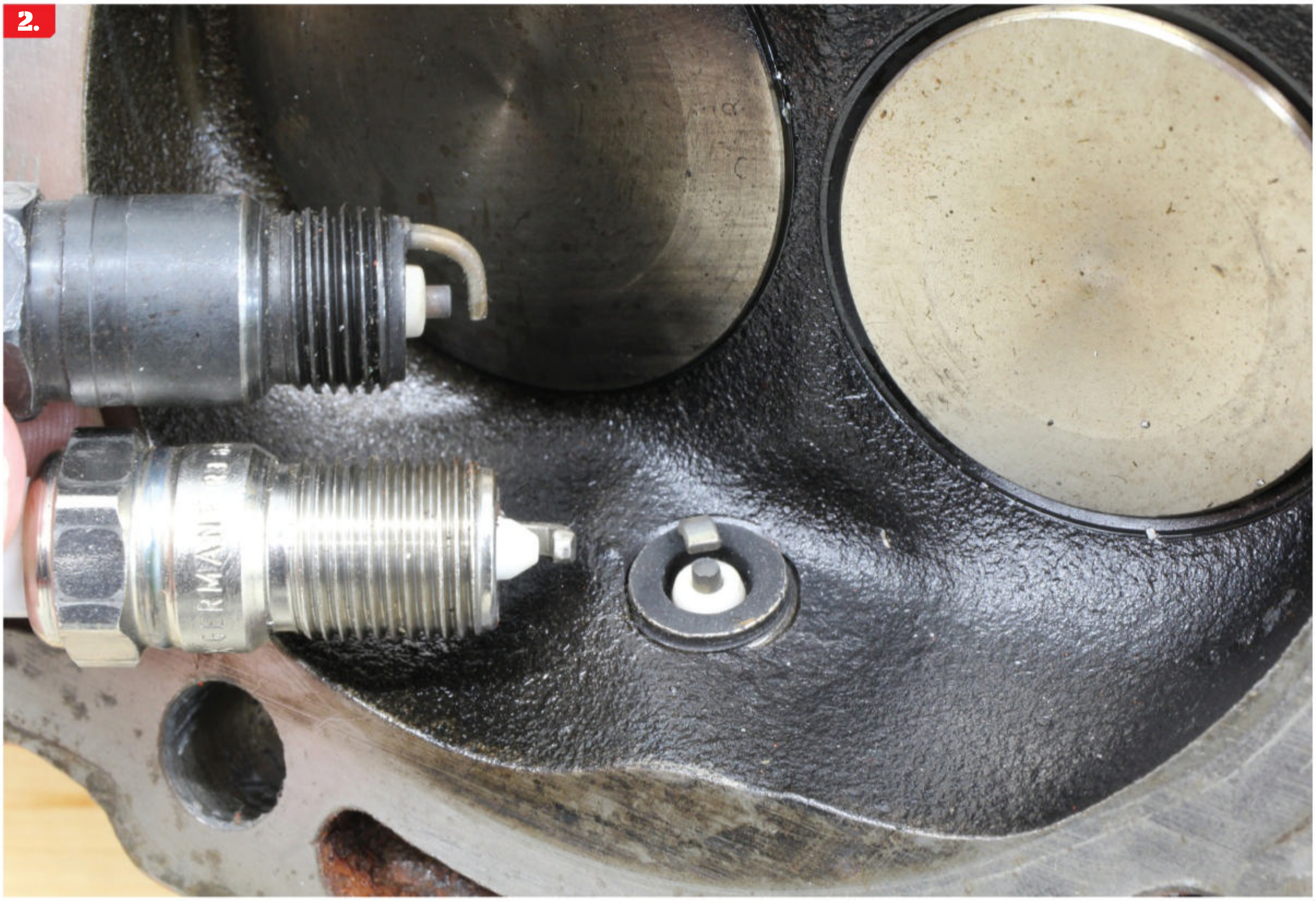
1. Long-reach plugs *(right)* are identified by their increased thread length. The short-reach plug on the left uses a tapered sealing surface while the long-reach plug uses a metal gasket.

2. The Vortec iron head for the small-block Chevy is a very popular cylinder head but be aware that it requires a longer thread reach than the older, traditional small-block Chevy iron head spark plug. If a short reach plug is used the spark plug is shrouded inside the threads and the engine will run poorly and require a very rich mixture to run. This is a common misapplication for the big-block Chevy as well.

This thread reach is critical because this dimension has evolved over time. As engines are redesigned, thread reach has become longer. The original small-block Chevy thread was a mere 0.375 inch. Early big-block Chevys employed spark plugs with longer reach specs of 0.790 inch but then shortened that figure back to 0.433 inch for later engines like the 1972 454. So, consistency within engine families is not something we can assume.

Reinforcing that idea are the Vortec small-block heads with increased thread reach numbers. The reason for this change was to extend the length of the threads to push the working end of the spark plug deeper into the combustion chamber. For these heads, the thread reach jumped to 0.680 inch. Thread reach is critical for all engines but especially for this cylinder head because it's easy to assume a 0.375- or 0.433-inch reach plug will work. Using short-reach plugs in a Vortec head would be a serious error because this shrouds the spark and kills combustion efficiency. As mentioned earlier, this mistake can also occur with big-blocks where short-reach plugs are incorrectly used in a head that requires longer threads.

2.



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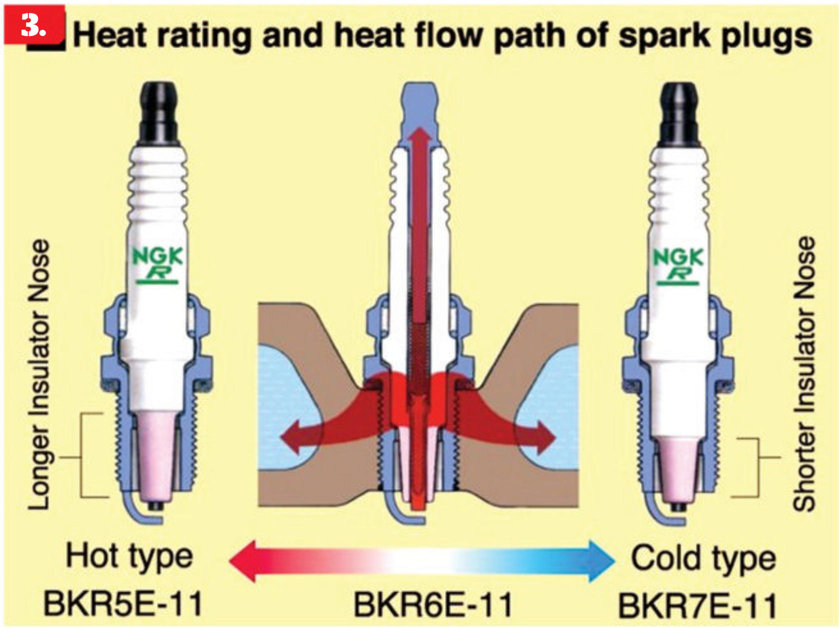


3. This NGK illustration accurately illustrates the heat path revealing how a colder plug *(on the right)* shortens the path to the spark plug body while a hotter plug lengthens the path to maintain sufficient heat in the center insulator to burn off carbon deposits.

Of course, the opposite is also true where a long-reach plug can be incorrectly applied to a short-reach head. In this case, it's possible this could cause physical damage to the piston from the extended length. Even if this does not occur, the exposed sharp edges could create hot spots inside the combustion space.

The next step in plug selection is to ensure that the plugs employ the correct sealing surface. The two most popular are a tapered seat on the plug body or a metal gasket that seals to the cylinder head. Misapplication of these sealing surfaces is less common but it does happen. Aftermarket aluminum cylinder heads for the small- and big-block Chevy engines often employ gasket plugs while the LS and LT families are more often machined for tapered seats.

The next step in spark plug selection enters more of a gray area related to positioning the working end of the plug. Early versions for the small-block employed what is now called non-projected or standard-nose plugs where the center electrode barely extends past the end of the threads. Later engines extended this position beyond the end of the threads.

These projected nose plugs do offer advantages by placing the spark closer to the center of the combustion chamber.

Projected nose plugs generally work very well but the engine builder or tuner must verify clearance when using domed pistons. We had an experience with a 1967 Z/28 302ci engine with a domed 11:1 compression piston where a projected nose ground strap was instantly crushed by contact with the piston dome. This can also occur in big-block Chevys with domed pistons. Sometimes projected nose plugs can be accommodated by indexing the spark plug so that the ground strap is moved away from the piston dome.

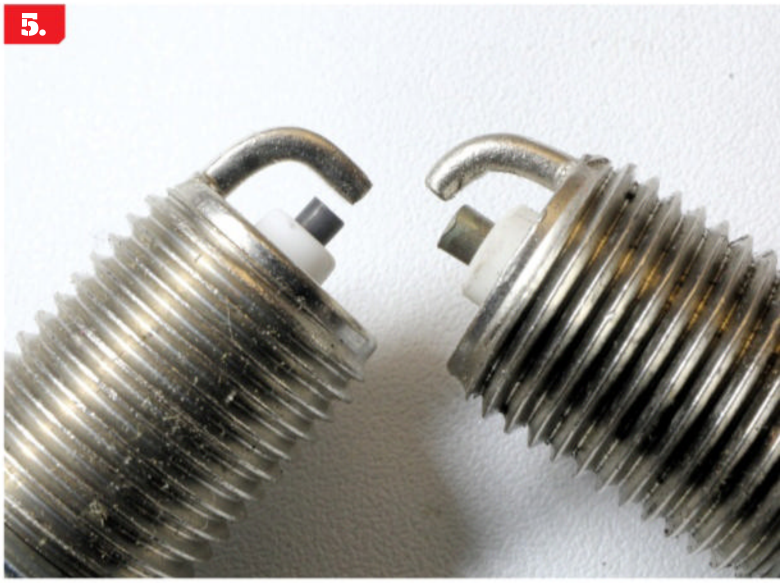
While we're on the subject of ground straps, the projected nose design naturally extends the length of the strap. For normally aspirated engines this is not an issue, but this added length can be problematic with supercharged, turbocharged, and especially nitrous engines. These applications create higher cylinder temperatures and pressures. These elevated temperatures put additional heat into the longer ground strap. At a certain point, this longer strap can turn into a glow plug that can cause pre-ignition.

4. A projected nose spark plug *(left)* extends the working end of the plug a greater distance past the threaded end of the plug. This moves the spark closer to the center of the combustion space, which can reduce the need for more ignition timing.

4.

5. Side gapping spark plugs *(right)* is a common race engine trick. We replaced a standard non-projected nose plug with a side-gapped spark plug of the same heat range in a domed piston 12:1 compression small-block Chevy. This simple change produced a 4hp improvement in peak horsepower while also increasing midrange torque. Not all engines will respond as well, but for domed-piston engines this might be beneficial by opening the spark access to the chamber.

5.



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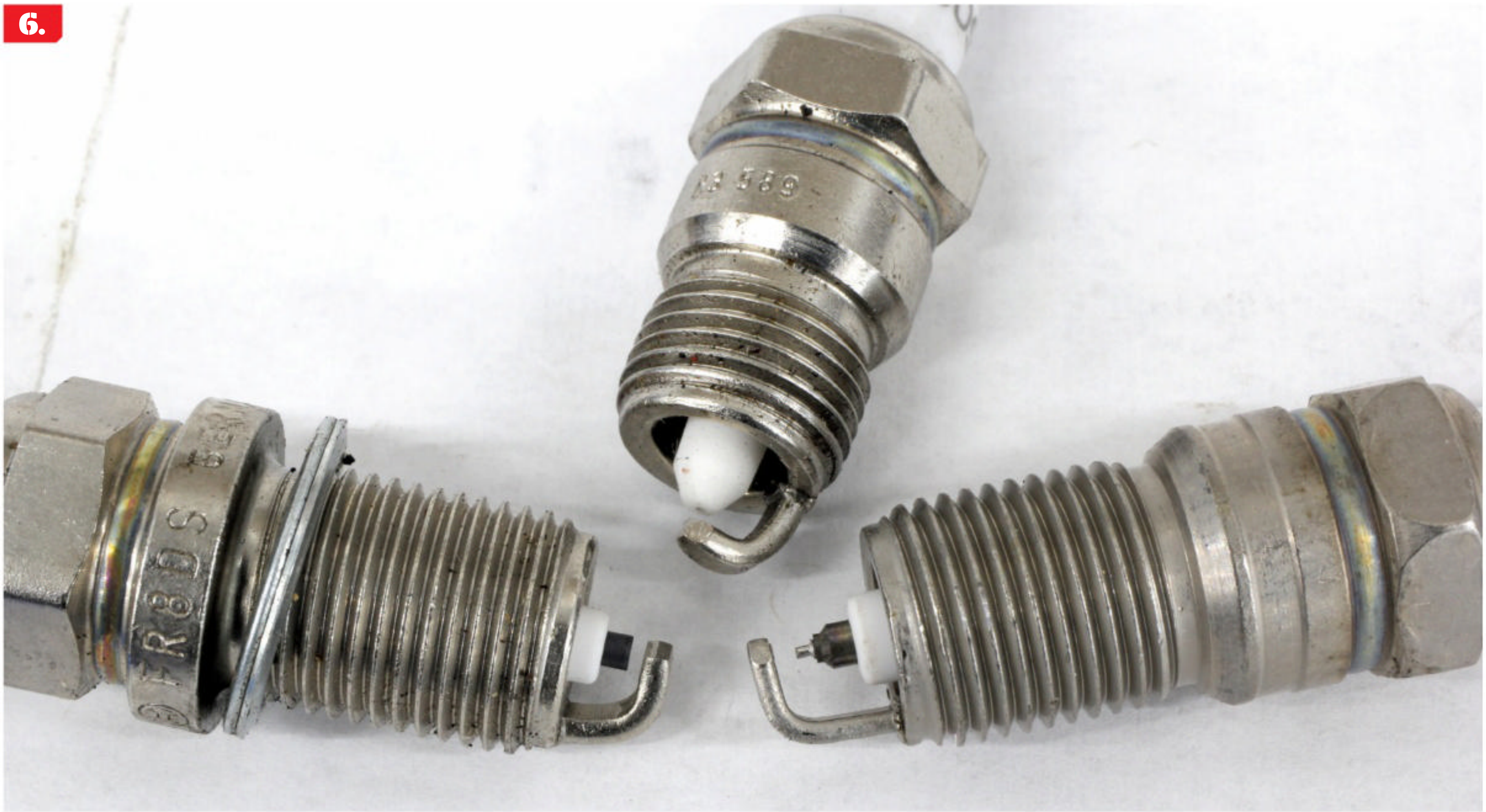


6. In this photo, the traditional plug is on the left with a fine wire Bosch in the middle and a double platinum on the right. Fine wire or platinum-tipped plugs have a place in street applications, but these specialty versions do not necessarily offer increase in performance or mileage. They do offer increased durability and maintain their plug gap over high mileage.

7. Specialty plugs with multiple or unique ground straps have been popular for decades, but our discussion with a spark plug engineer reinforced testing that we have performed that reveals that exotic ground straps do not improve combustion efficiency and cost more than standard plugs.

7.

We won't get into all the details of how pre-ignition differs from detonation but be aware that pre-ignition is exactly what it sounds like—lighting the mixture far in advance of normal ignition timing. It doesn't take much of an imagination to foresee the kind of internal engine damage that can occur when combustion begins 60 or 80 degrees before its normal ignition point. This is pre-ignition. There's no warning except when the engine disassembles itself in an instant. It's ugly.

The point is to avoid this by using a shorter ground strap with high boost levels or with nitrous. You may see factory supercharged engines using extended nose spark plugs and these plugs are acceptable because development engineers have determined there is no danger of pre-ignition. But if the stock boost is greatly increased, or a different fuel like ethanol is used, this could become an issue. Ethanol, for example, lights off very easily and therefore demands a very cold heat range spark plug with a non-projected nose that keeps the ground strap short or even cut back.

This leads us to the subject of heat ranges. One of the easily altered variables is the operating temperature of the spark plug. The heat range is determined by the length of the center ceramic insulator. The distance from the center electrode to the base of the ceramic determines how far combustion heat must travel through the insulator to the metal body of the plug where the heat is dissipated through the cylinder head.

A hot heat range spark plug increases the length of the ceramic while a cold plug employs a very short distance ceramic. A family of plugs may offer four to six different heat ranges to allow the engine builder to custom select the right plug for the application.

The reason for multiple heat ranges has to do with matching the operating temperature of the spark plug to ensure that carbon deposits on the center electrode are burned off. As an example, let's say that we have a normally aspirated LS engine with 10:1 compression that prefers a stock heat range plug. But then we add a 200hp nitrous system. This will create more combustion heat and will operate best with a one- or two-step colder plug.

An example, if our small-block Chevy was running aftermarket aluminum heads with an Autolite 3924 spark plug and we want to run two steps colder. Autolite rates colder plugs with a lower number, which in this case would be a 3922. Accel, ACDelco, Bosch, and Denso all employ this same process. NGK however is the opposite so that a colder plug is assigned a larger number.

The correct selection procedure is to choose a heat range where the heat is sufficient to burn off the carbon deposits but not operate at too high a temperature. Excessive plug temperature can cause the plug to glaze over, which will cause misfire and poor performance. But choosing a too-cold heat range plug will allow carbon to build up on the plug, which will also cause misfires and reduced performance.

Most street engines with performance camshafts and pump gas compression will want a spark plug very close to the stock heat range. But each performance engine is different so with a newly built engine you will want to track plug condition to ensure the heat range is correct.

This will require developing skills in reading spark plugs. While a complete guide for reading spark plugs is beyond the scope of this story, some simple recommendations will point you in the right direction. As mentioned, the correct heat range will exhibit minimal carbon deposits on the center electrode and that electrode will have a mild tan to light brown color.

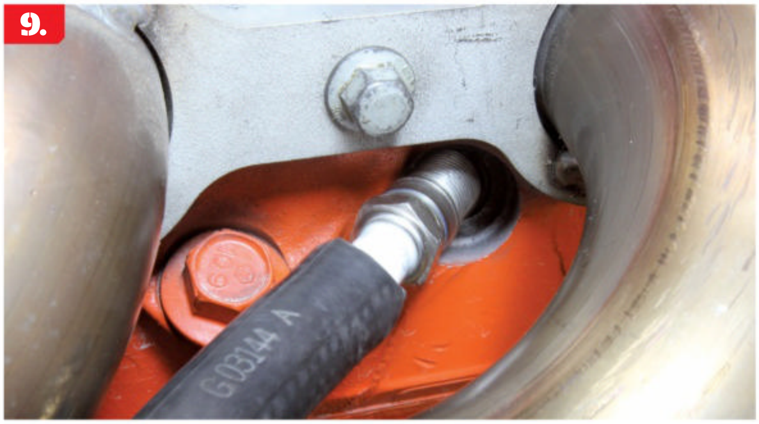
A center electrode that appears glossy or shiny is likely glazed, which indicates it has experienced high plug temperatures. A sooty black condition generally indicates the engine is running an overly rich air/fuel ratio. A plug with a bone white center insulator ceramic indicates the plug is too hot or possibly the induction system is too lean. It's also possible that the engine is experiencing a combination of those issues.

Among the specialty spark plugs that often excite engine enthusiasts are spark plugs employing rare earth metals, such as platinum and iridium. Generally, these plugs use a very fine wire center electrode or perhaps a platinum tip on an otherwise-standard nickel alloy metal core. Fine wire plugs are often used in production engines because they offer increased wear life compared to the traditional center electrode spark plugs. These fine wire plugs also demand less voltage to initiate the spark, which also increases their life expectancy.

8. We've all tightened the plug gap by banging the ground electrode on the bench, which is not the preferred procedure. We found this simple tool online and Summit Racing also carries several different variations on this tool. Work carefully around fine wire plugs as the center electrode is easily damaged.

9. Sometimes the biggest problem is just getting the threads started in the cylinder head. A classic hack is to use a length of rubber fuel line to guide the plug into place while carefully spinning the hose to initiate thread engagement. Then the appropriate plug wrench can finish the job. This is a time-honored trick—but it works.

9.



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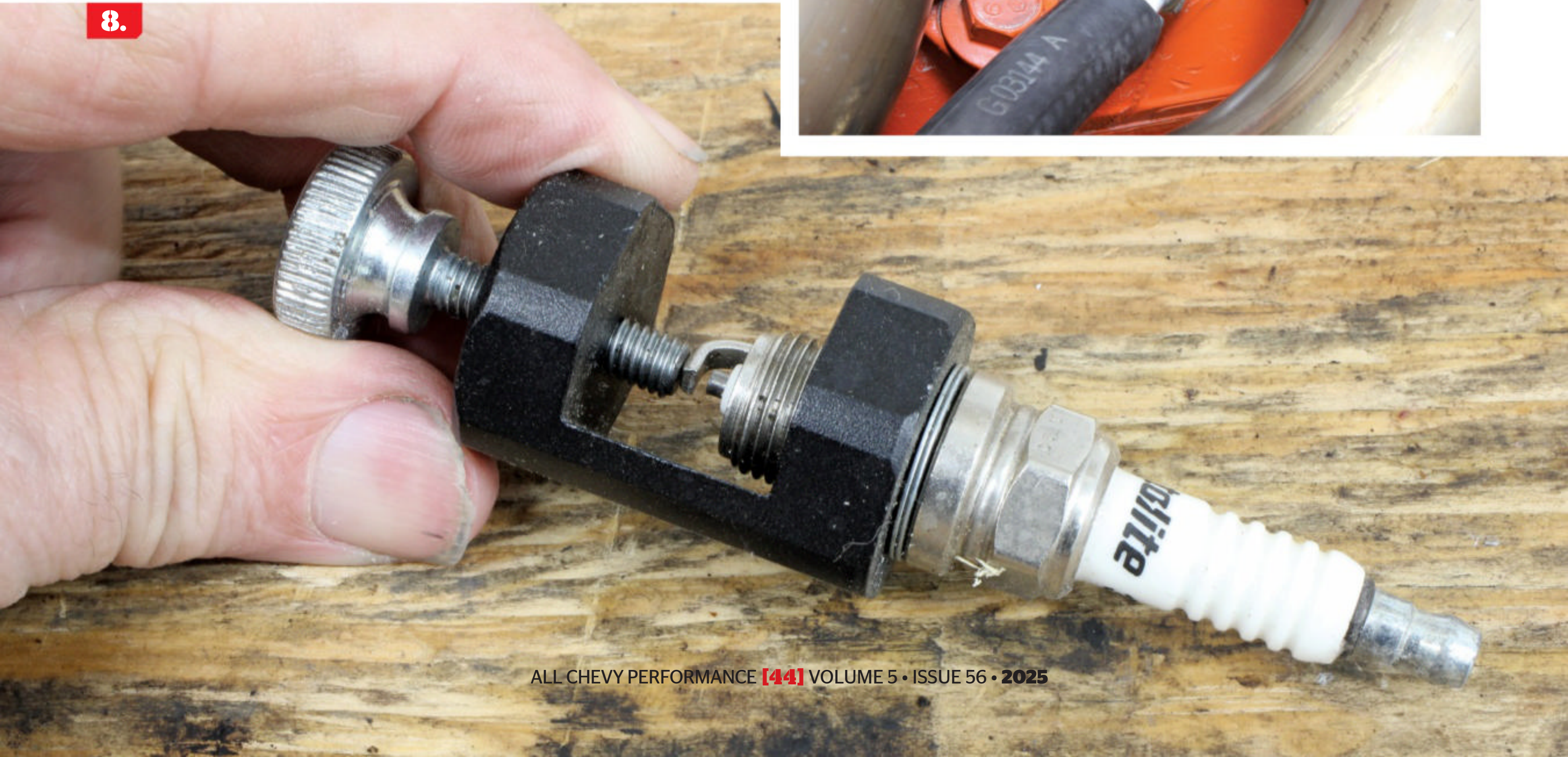

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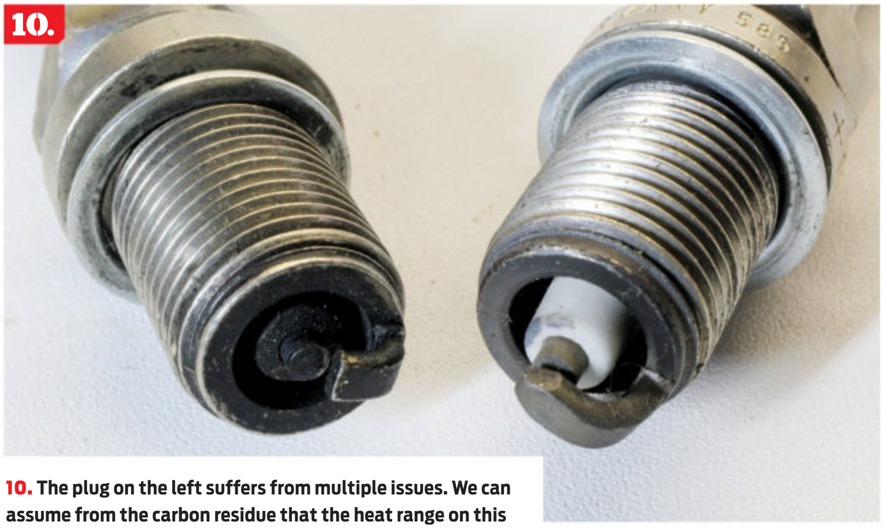
Given these attributes, many fine wire plugs are fitted with a wider spark plug gap that can operate as wide as 0.060 inch. If modifying the plug gap is required, it's important to work carefully and use a tool that only adjusts the ground strap and does not contact the center electrode. As you can image, fine wire plugs are easily damaged.

You may have read claims that iridium or platinum plugs should never be used in supercharged engines because the fine wire tip can easily become a hot spot that can cause pre-ignition. If this rumor was true, the factory would not use an iridium, fine wire spark plug in its supercharged applications like the 668hp, 6.2L direct gasoline injection Cadillac CTSV-5 Blackwing engine.

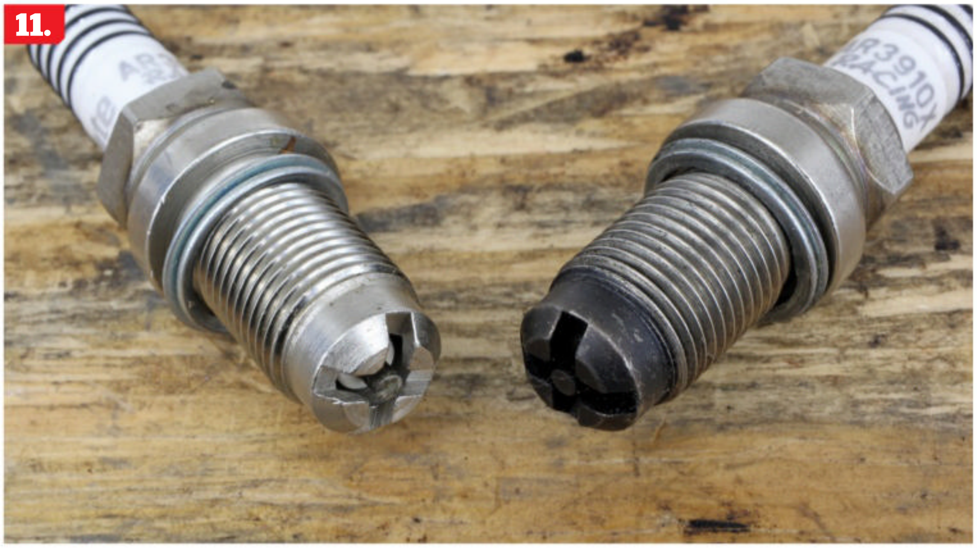
This story has touched on some of the important points relative to selecting the right spark plugs for your engine. There is much more to learn, but this should offer a more educated path to follow. There are plenty of different routes the tuner can take to arrive at the correct plug. That's the beauty of performance engine tuning. You have plenty of choices.

10.



10. The plug on the left suffers from multiple issues. We can assume from the carbon residue that the heat range on this plug is too cold and its condition could be improved by leaning the air/fuel mixture. Finally, with no heat mark on the ground strap or the threads, this engine might respond to increasing the ignition timing. The plug on the right is much cleaner with a proper heat range. It may have experienced slightly lean air/fuel ratios, but it is in far better condition than the plug on the left. A slightly tan center electrode color is close to ideal.

11.



11. Supercharged, turbocharged, or nitrous engines radically increase the heat in the combustion chamber, making life difficult even for shortened ground straps. To combat this, several companies offer surface gap spark plugs that eliminate the ground strap completely. This Autolite version is called the X-gap plug featuring four sharp corners to enhance spark performance.

SOURCES

ACDELCO
gmparts.com

AUTOLITE
(855) 200-5200
autolite.com

BOSCH
(888) 715-3616
boschautoparts.com

CHAMPION
championautoparts.com

HOLLEY PERFORMANCE (ACCEL)
(866) 464-6553
holley.com/brands/accel/

NGK
(877) 473-6767
ngksparkplugs.com

SPARK PLUG SPEC

The following chart breaks down five OE spark plug applications into five important specs. Note that the only difference between the Vortech small-block Chevy plug and the LS version is the plug gap. We used these plugs merely as examples for the specs. Champion, NGK, Bosch, or others could easily be substituted.

SPARK PLUG	THREAD REACH (IN.)	GASKET OR TAPERED	ELECTRODE	CTR., STD., OR PROJ.	NOSE GAP	APPLICATION
AC Delco R43S	0.372	Gasket	Copper	Std.	0.035	ACDelco R43S is for early small-block Chevy iron heads
Autolite AR25	0.433	Tapered	Copper	Mid Proj.	0.035	Autolite AR25 is for early big-block Chevy iron heads
ACDelcoR44LTS6	0.680	Tapered	Copper	Projected	0.060	ACDelco R44LTS6 is for a small-block, iron Vortec head
ACDelcoR44LTSM	0.680	Tapered	Copper	Projected	0.040	ACDelco R44LTSM is for the 2000 LS1 5.7L engine
Autolite 3924	0.748	Gasket	Copper	Projected	0.040	AR3924 is a common application for aftermarket small-block Chevy aluminum heads

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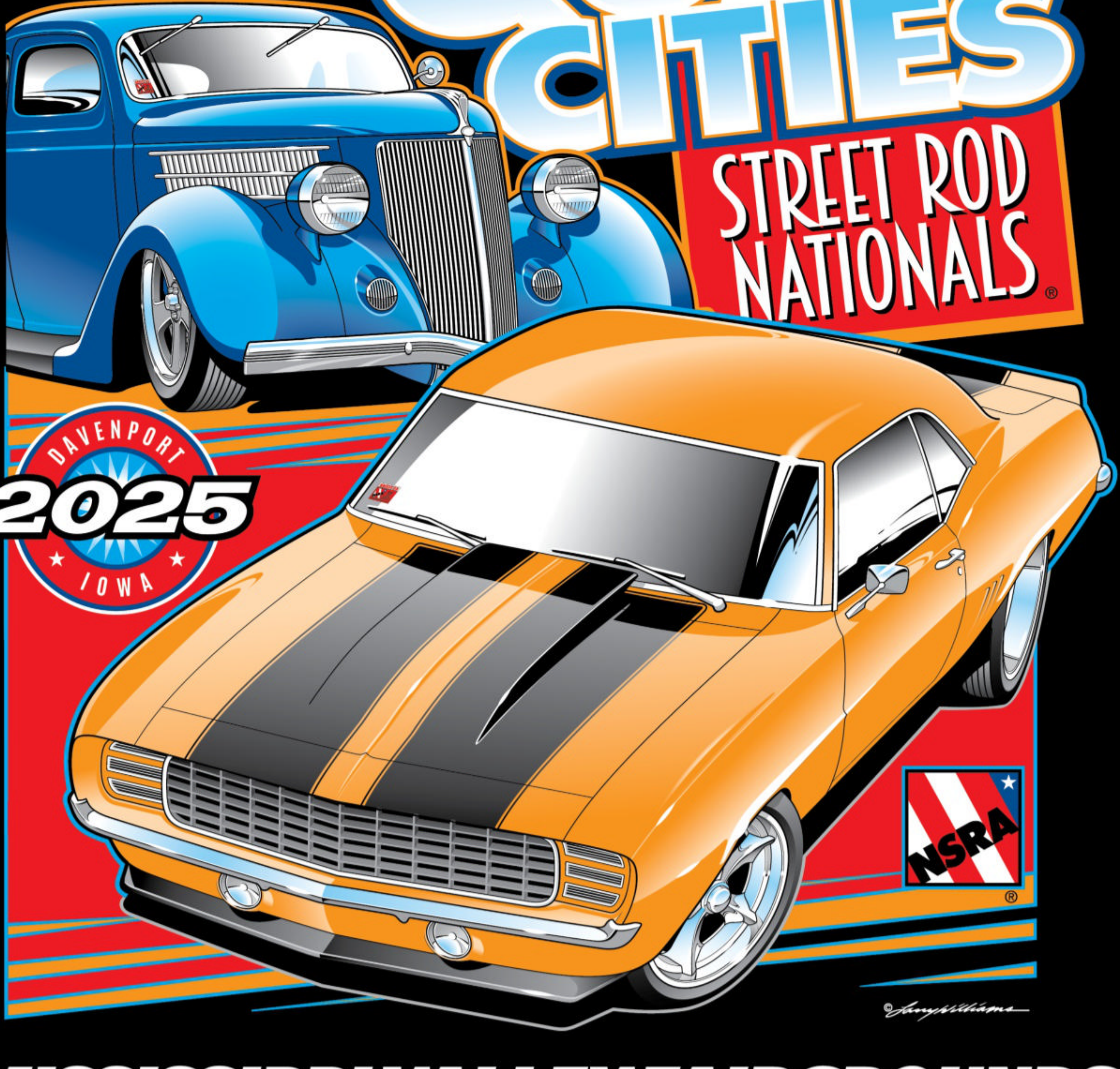
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BY **BRANDON BURRELL** IMAGES BY **THE AUTHOR**

TEENAGE MEMORIES

GLENN ARLEDGE'S 1968 CAMARO

When we think back on our high school days, there are always a ton of great memories and stories. The older we get and the further we are from that time in our lives, the more we are reminded of the good times. For Glenn Arledge of Columbus, South Carolina, a lot of those teenage years revolved around a 1968 Camaro RS. From cruising with friends to date nights, that car was always a big part of his life. Glenn bought the car when he was 15 years old from a neighbor who was a big Camaro guy, so Glenn was always over at his house admiring his car collection. It took about two years of begging before the owner would let it go. Knowing how much of a fan of the car Glenn was, he knew it would go to a good home. The factory 396 big-block and the Rally Sport hideaway headlights were what got Glenn's attention. "My father loaned me $3,500 to purchase the car and I very slowly paid him back," Glenn says. "It was 1986 and gas ran through that car quick, and even at 78 cents per gallon, most of my money went to fuel and tires.

"My fondest memories with this car were driving it every day to high school for three years, winning races on weekends to buy more fuel, and getting in trouble for running seven laps with it at the Charlotte Motor Speedway without permission," Glenn laughingly recounts. "I continued to use the car as a daily driver all throughout my college years at UNCC and Clemson. Luckily, I never wrecked it."

The car was retired from daily driver status back in 1994 when Glenn got married. It sat most of the time, other than the occasional cruise night or Sunday drive. This caused the transmission seals to leak, proving that not driving these classics does more harm than good. Glenn pulled the transmission with intentions of rebuilding it and getting it back on the road, but he started his own business, so the car got pushed to the back burner. It sat in his company shop for years as Glenn focused on work and family.

After deciding it had sat long enough, David Waldrop of Waldrop's Restorations picked the car up in May 2015 and began the restoration process. The original plan was a simple engine rebuild, paintjob, and disc brake upgrade. Once David started the process, good memories kicked in, and Glenn decided he wanted a car he could drive again with reliability but with upgraded suspension, brakes, air conditioning (finally), and more horsepower. So, they decided on the restomod route.

The first thing to do was to get the car a better stance and modern handling. For this, the stock suspension was swapped for a Detroit Speed suspension system—a hydroformed subframe and coilover shocks up front matched to a QUADRALink rear system out back. Adding the modern suspension instantly gave the Camaro a smooth and performance-inspired ride. Big Baer disc brakes were added on all four corners while a Master Power Carbon X series master cylinder and booster offer a smooth pedal feel and precise operation.

With the rolling chassis done, it was time for additional power to make this car outperform what Glenn was used to. A supercharged 6.2L, LT4 Chevrolet Performance crate engine was transplanted along with a TREMEC TR6000 six-speed transmission. The American Powertrain clutch and bellhousing, along with a custom driveshaft from Carolina Driveline, ensures all that newfound power gets sent to the Moser axles and 3:73 gears. The rear received mini-tubs to allow for larger tires during this time as well. The 3-inch stainless exhaust paired with MagnaFlow mufflers unleashes a roar that makes this new engine sound absolutely savage.

A car that drives and performs this well must look just as stunning—and thanks to Waldrop's Restorations, it does. They stripped the body down, perfected every line and gap, and then laid down a layer of GM 1971 LeMans Blue. The result? A flawless finish that honors the classic style while making the car look and feel brand new.

The stock bumpers were refinished, and new Detroit Speed headlights reside behind the grille. Out back, a set of Eddie Motorsports taillights add additional flair.

TECH ✓

OWNER: Glenn Arledge, Columbus, South Carolina
VEHICLE: 1968 Camaro RS

Engine

TYPE: Chevrolet Performance LT4
DISPLACEMENT: 6.2L (376 ci)
BUILDER: Chevrolet Performance
BORE: 4.065 inches
STROKE: 3.622 inches
COMPRESSION RATIO: 10:1
ROTATING ASSEMBLY: Forged steel crankshaft, forged powdered-metal steel, forged aluminum pistons
CYLINDER HEADS: Rotocast aluminum
CAMSHAFT: Hydraulic roller, 0.492/0.551 lift, 189/223 degrees duration at 0.050
INDUCTION: Eaton 1.7L R1740 TVS supercharger
EXHAUST: 3-inch stainless exhaust, MagnaFlow mufflers
OUTPUT: 650 hp, 650 lb-ft
ANCILLARIES: Anvil Auto carbon-fiber inner fenders, Eddie Motorsports hood hinges

Drivetrain

TRANSMISSION: TREMEC TR 6000 six-speed
CLUTCH: American Powertrain clutch and bellhousing
REAR AXLE: Moser, 3:73 gears, Eaton Truetrac posi

Chassis

FRONT SUSPENSION: Detroit Speed hydroformed subframe and coilover shocks
REAR SUSPENSION: Detroit Speed QUADRALink and coilover shocks
BRAKES: Baer 13-inch rotors, six-piston calipers front and rear

Wheels & Tires

WHEELS: Schott V10 18x8 and 20x11
TIRES: Toyo Proxes R888 255/35R18 and 285/30R20

Interior

UPHOLSTERY: Impact Interior Products black leather and suede
INSTALLATION: New Creations
SEATS: Snowden front seats and custom rear buckets
STEERING: Ididit column and Billet Specialties steering wheel
DASH: Stock modified
INSTRUMENTATION: Dakota Digital
WIRING: Painless Performance
HVAC: Vintage Air
CONTROL PANEL: Dakota Digital

Exterior

BODYWORK AND PAINT: Waldrop's Restorations
PAINT: 1971 LeMans Blue
GRILLE: Stock with hideaway headlights
HEADLIGHTS: Detroit Speed
TAILLIGHTS: Eddie Motorsports
SIDE MIRRORS: Original style

Once the car was back together, all it needed were the right wheels, a custom interior, and a few finishing touches. To make it happen, Glenn had the car sent over to Nes Creations, where Jason Mode and his team took over to dial everything in.

Choosing the perfect wheels can make or break a build, so Glenn trusted Mode's expertise. After some collaboration, they landed on a set of Schott V10 wheels—18x8 up front and 20x11 in the rear—wrapped in Toyo rubber. The setup perfectly nailed the look Glenn was after.

Impressed by Mode's attention to detail, Glenn gave him full creative control on the interior. Mode selected a black leather and suede combo from Impact Leather Products, incorporating custom panels throughout that took the interior to the next level. The result is a perfect blend of classic style and modern flair.

Nu-Relics power windows and a new audio system added a modern edge, while Snowden front bucket seats and custom rear buckets ensure every passenger rides in comfort. A new Ididit steering column paired with a Billet Specialties steering wheel finishes off the cockpit with style.

To top it all off, components from Dakota Digital, Vintage Air, and Painless Performance Products ensure the car functions like it just rolled off a modern production line.

After sitting dormant for 21 years, then spending another 9 rebuilding, mostly due to Glenn stopping the process to make decisions on parts and plans, it's now being driven as much as possible. These photos were taken the day Glenn got to start it and drive it for the first time in about 30 years and we could tell it made him feel like a kid again. Even though the process for some builds takes decades like this, the joy they bring to the owners makes it worth every bit of time and money.

Glenn said he never could have gotten his 1968 Camaro back on the road without the help and vision of Waldrop and Mode. Thanks to them, he and his wife can now take the car out on dates and relive the memories of their younger years. ACP

98536
NORTH CAROLINA

BY **CHUCK VRANAS** IMAGES BY **THE AUTHOR**

DASH, DIALS, 'N' CHILL

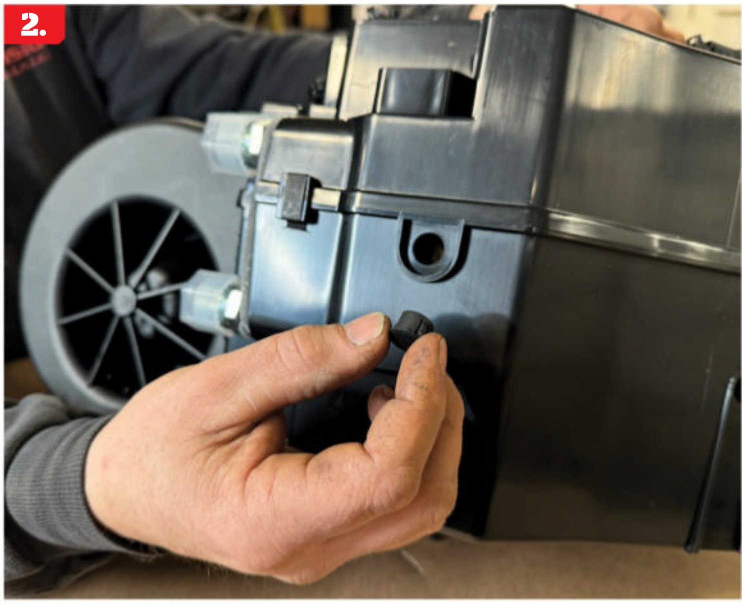
UPGRADING A SECOND-GEN CAMARO'S CLIMATE CONTROL, GAUGES, AND DASH

1.

1. Getting started, Pat O'Brien of Procision Industries unboxed the Vintage Air 1970-78 Camaro with Factory Air Gen 5 SureFit Evaporator kit and began to prepare the Magnum Max module for installation.

2. Install the (three) provided ½-inch plugs by pressing them into the back of the evaporator module.

2.



One of the most important areas of any high-performance ride always leads to the business office, which serves as the hub for monitoring the car's vitals as well as maintaining its full operational control while also providing plenty of comfort for the occupants. Regardless of whether you're taking on a full build or simply making updates, it's a solid idea to think about upgrading your interior components, especially if you're choosing to up the ante in the horsepower department of your classic Chevy. This can be as simple as opting to add a more-efficient gauge package or replacing a torn dashpad to more involved updates, like adding a new air conditioning system.

Many regular readers of *All Chevy Performance* will recognize the 1971 Camaro showcased across our pages, having followed its transformation from that of a stripped-out shell. As time has passed, we've focused on its suspension, brakes, LS driveline, cooling, exhaust, sheetmetal, wiring, and insulation. Looking deep into the bare interior, it's time to focus on bringing it back to life with plenty of industry-leading technology to support the newly updated thunder of a 5.3L LC9 LS underhood. We recently followed up at Procision Industries in Taunton, Massachusetts, where shop owner, Pat O'Brien was preparing to move forward by taking on this very subject.

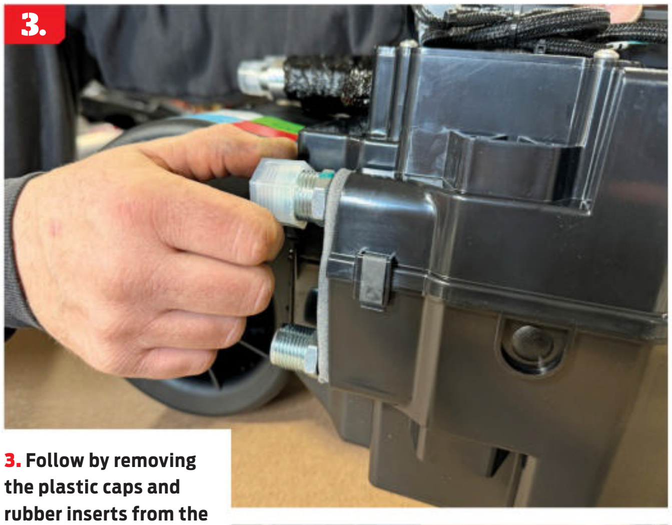
When faced with the daunting task of outfitting a bare interior shell, a call was placed to Classic Industries to look deep into their catalog of offerings, including plenty of parts from OER (Original Equipment Reproduction) to handle the entire dash, including the dashpad, manufactured with the same crisp OE factory lines and molded in color with the correct grain surface. All related plastic components, including the dash instrument carrier bezel and lower dash panels, feature the correct OE grain injection molded in ABS plastic as in the original parts. This would also include all related upper and lower vent assemblies as well to complete the job. Another important offering for the reassembly process came from AMK Products with their Master Interior Fastener Kit for the 1970-71 Camaro (PN 70FN), providing every grouping of hardware masterfully bagged and tagged for each individual component.

With the interior stripped out, it was also the perfect time to follow up on the climate-control system to ensure plenty of comfort in the cabin. For this job, Vintage Air supplied their latest state-of-the-art Gen 5 SureFit Evaporator Kit for the factory-air-equipped 1970-78 second-gen Camaro (PN 564258). It's one of the most powerful and technologically advanced units available today. Some of the many noteworthy features include an exclusive, fully electronic microprocessor-controlled system that eliminates the need for cables or vacuum connections as well as separate high-capacity A/C and heater coils with blend-air door for rapid vent temperature adjustment and new bolt-in SureFit electronic control panel for all adjustments.

Fusing modern technology with stunning vintage looks, Dakota Digital raised the bar with their latest RTX-Series gauge cluster for the 1970-78 Camaro (PN RTX-70C-CAM-X). Designed to fit within the factory OE or reproduction instrument carrier bezel, they bring monitoring the vitals on your vintage V-8 or modern LS to the next level. Every RTX cluster features a CNC machined housing with fully customizable LED backlighting in over 30 colors, allowing users to set endless unique combinations for the backlight, indicators, and screen. The exclusive, dual TFT high-definition message centers can be programmed to display real-time information, including driving data, mileage, gear selection, and even quarter-mile times, if desired. With the entire assembly powered by a single central control box it makes installation a snap.

Let's follow along as this second-gen gets closer to the street.

3.



3. Follow by removing the plastic caps and rubber inserts from the heater connections.

4. Prepare the upper and lower heater hard lines by first properly seating and lubricating the #10 O-rings with provided refrigerant oil.

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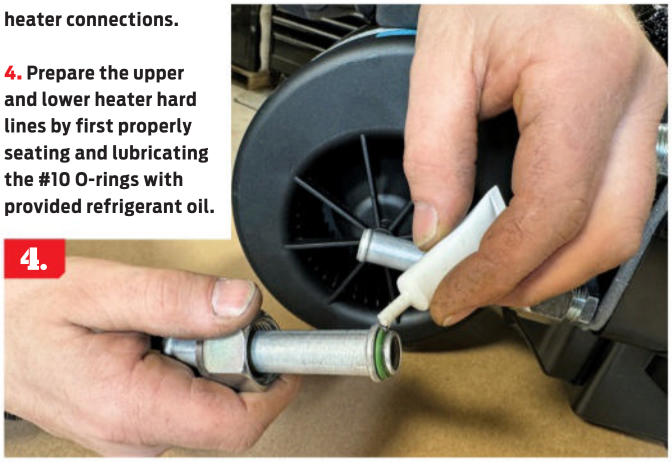

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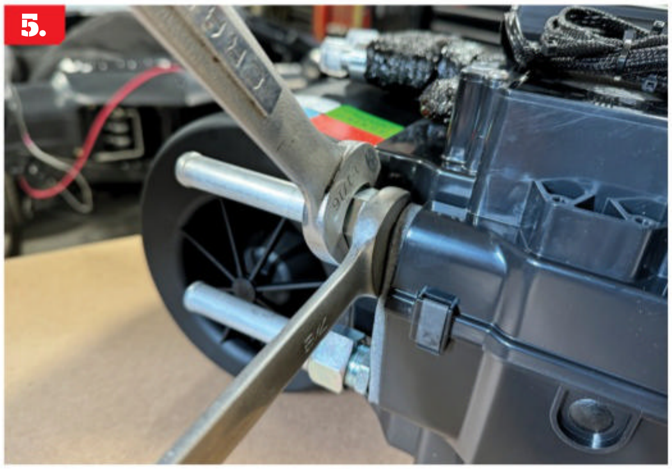
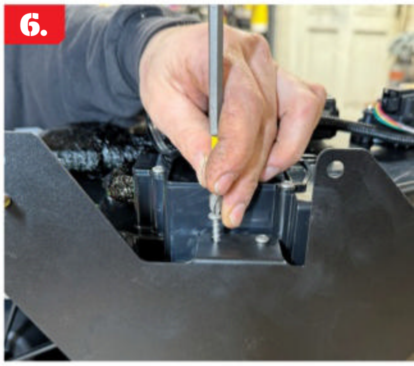


5. Install upper and lower heater hard lines to the evaporator module with properly lubricated O-rings using $1^{1}/_{16}$ - and $^{7}/_{8}$-inch open-end wrenches till snug.

6. Follow by adding (two) ¼-20 full-threaded studs halfway into the mounting holes on either side of the evaporator firewall bracket. Continue by mounting the bracket to the evaporator module using the provided (four) $^{5}/_{8}$-inch screws.

6.



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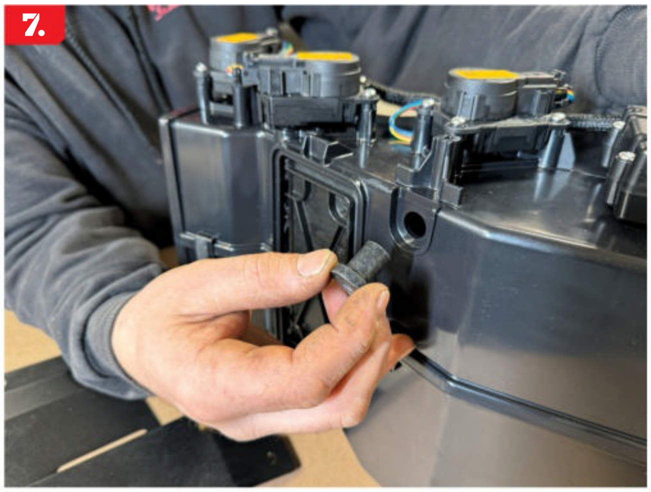


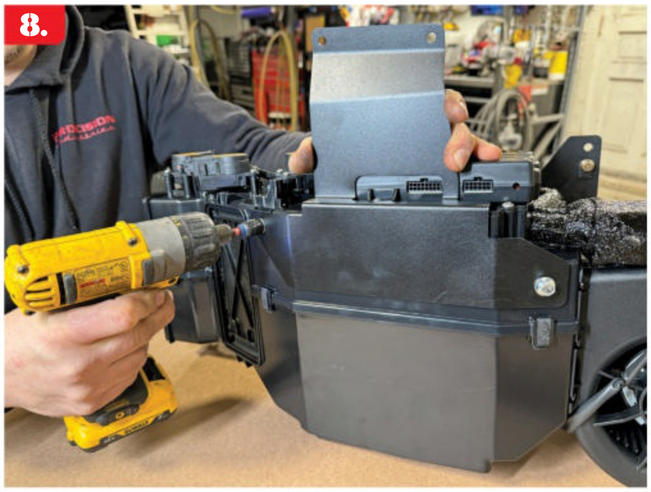
7. Next, install (two) ¼-20 well nuts into the front mounting provisions of the evaporator module.

8. Now install the evaporator module cowl bracket in place using (two) ¼-20 x 1-inch serrated flange bolts into the well nuts.

9. Using the (eight) provided spring clips, install the dash plenum, floor plenum, and two-vent plenum onto the evaporator module. Here, you can see the dash plenum being secured in place with its four vents visible.

10. Since we had previously routed our heater hoses through the passenger side kick panel in a prior article, we continued with the installation of the heater lines to the evaporator module with hose clamps to prepare it for mounting in place.

8.



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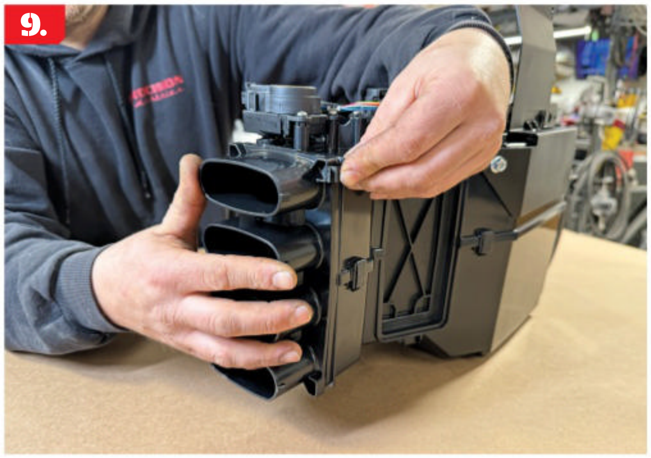

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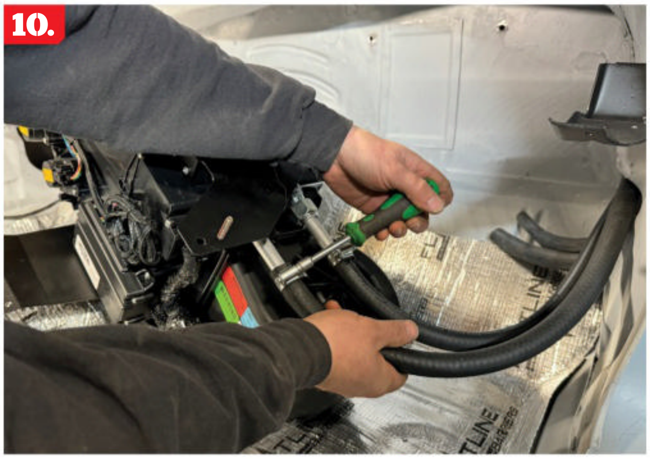

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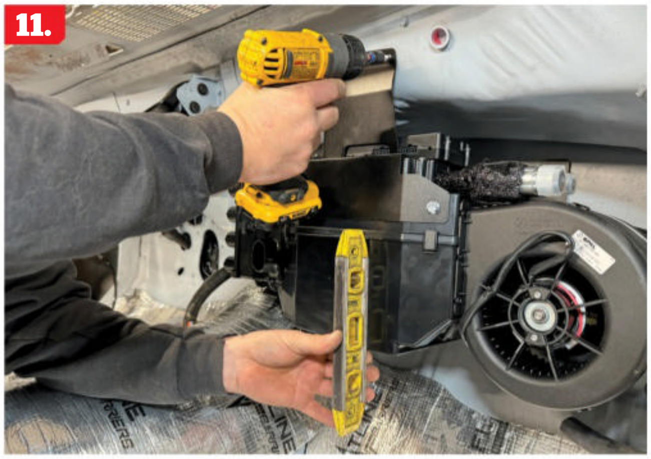

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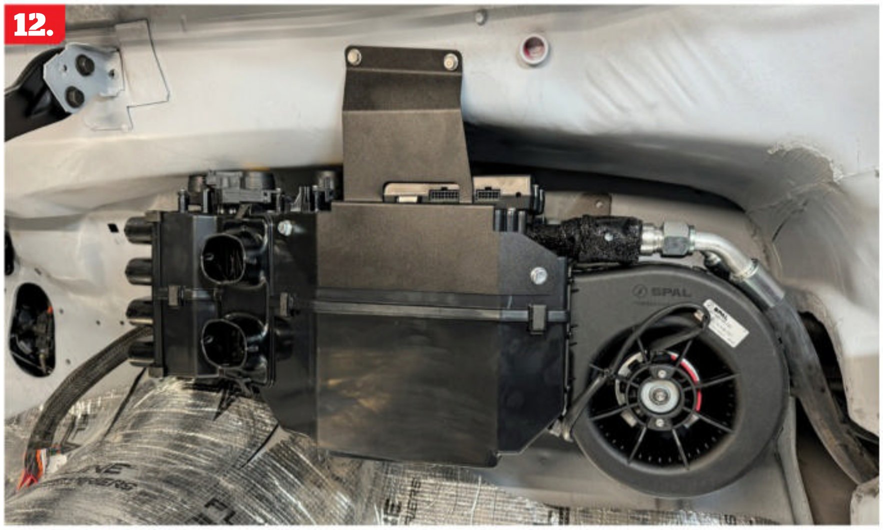

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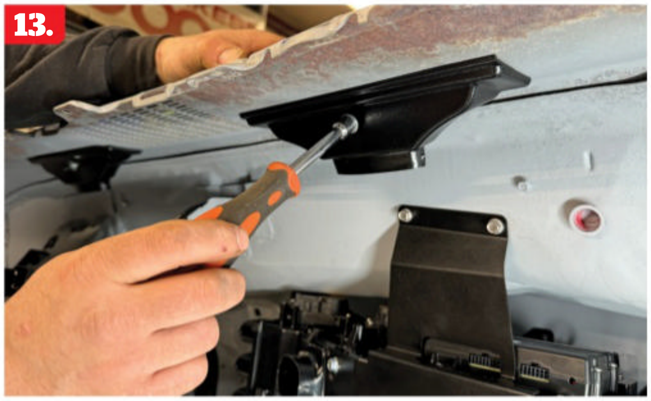

11. The evaporator module was carefully lifted up under the dashboard area and then located to the modified firewall using the full-length studs. At this time, level the evaporator module front to back and left to right, then secure the firewall bracket in place and the cowl bracket to the cowl using (two) ¾-inch washer head screws.

12. Using properly lubricated #6 and #10 O-rings, the corresponding 45-degree fittings were connected to the block fitting adapter and then covered with the supplied press tape. Now you can see the completed installation of the evaporator module. Note that upon final assembly, the kick panel cover installation, evaporator drain hose, and wiring will be completed at that time.

13. Using the provided hardware, mount the (two) defrost ducts in place to the OEM defrost duct mounting flanges located under the dash.

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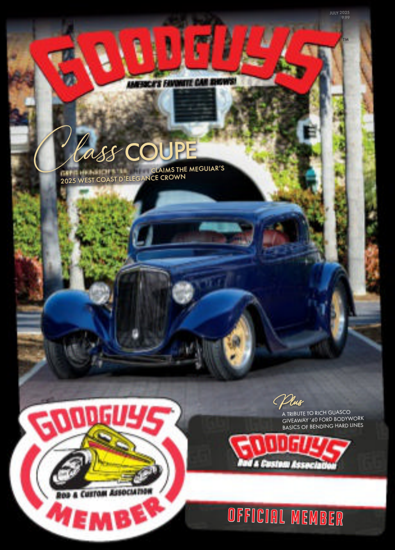
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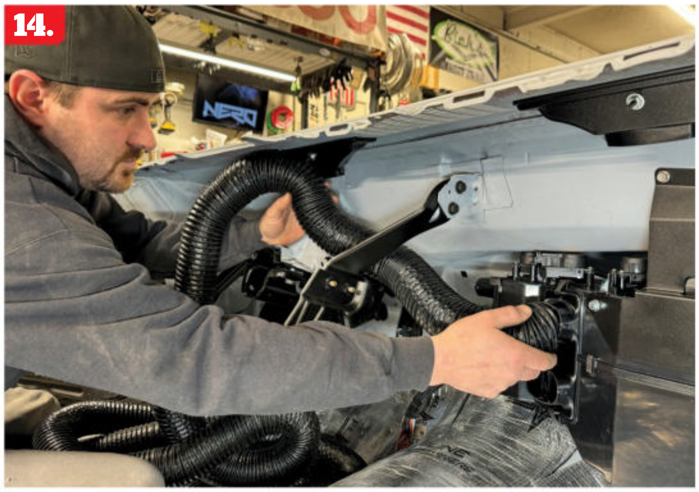
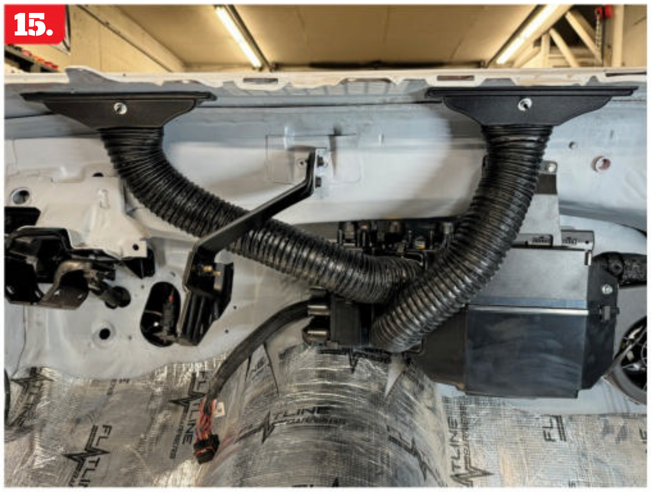


14. Measure and cut approximately 24 inches of the provided 2½-inch duct hose for both the driver and passenger side defrost ducts.

15. Secure both duct hoses in place from the evaporator module to the new defrost ducts under the dash for a nice tidy installation.

15.



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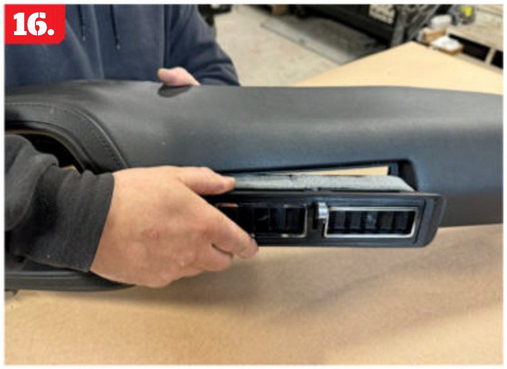

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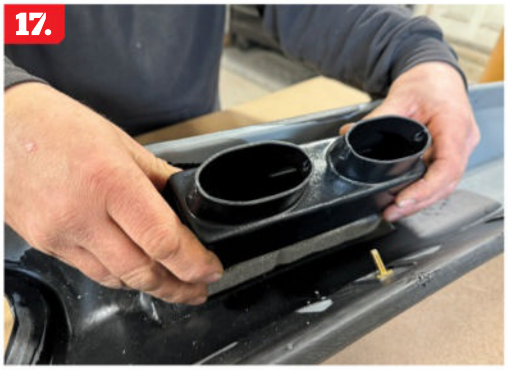

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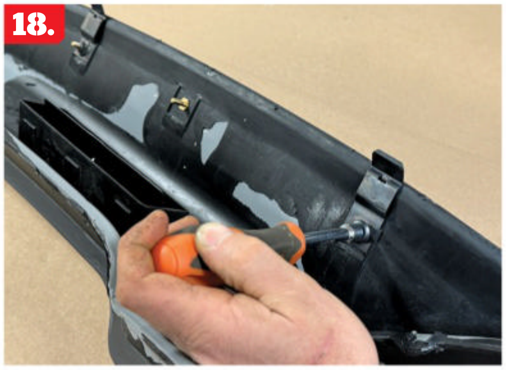


16. Begin the assembly of the new OER (Original Equipment Reproduction) dash from Classic Industries starting with the fitment of the center dash louvered vent assembly for air conditioning topped by a foam strip supplied by Vintage Air.

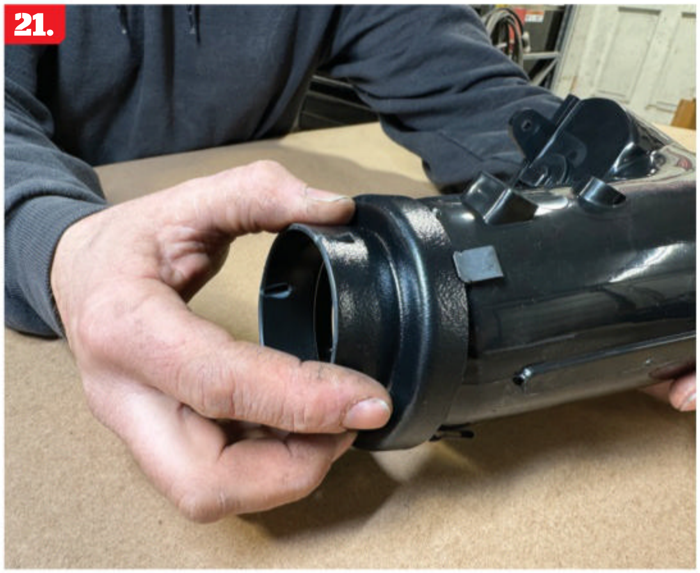
17. Follow by installing the Vintage Air center louver duct hose adapter. Using the (two) mounting holes on the bottom of the adapter as a guide, drill (two) $^{1}/_{8}$-inch holes in the bottom of the vent assembly and secure to the vent assembly using the provided hardware.

18. Next, install the upper dashpad retainer clips to the dash screw studs.

19.

20.

21.

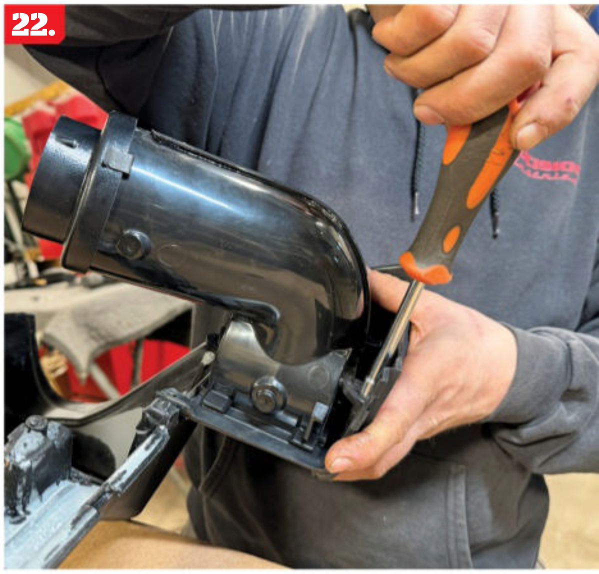


19-20. Secure the OER lower dash panel section, which houses the radio, glovebox, and air vent assemblies in place to the upper dashpad using the (five) retainer clips and screws included in the AMK Products Master Interior Fastener Kit sourced from Classic Industries.

21. Prepare the OER lower driver and passenger side dash vent assemblies for installation by first adding (three) S-clips to the Vintage Air hose adapter ends and sliding them into place on the inner vent assembly.

22. Follow by installing the completed vent assemblies to the lower driver and passenger sides of the lower dash.

22.



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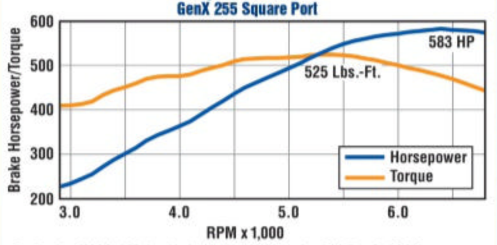

Test Engine: GM 6.2L LS3 short block with 10.43:1 compression, Trick Flow GenX® 255 square port cylinder heads (TFS-3261T002-C01), Trick Flow Track Max® hydraulic roller cam (TFS-32603001), stock L92 intake with 90mm throttle body, Kooks headers with 1⅞" primaries, and dual exhaust with 3" Flowmaster mufflers.

Airflow Results
GenX 255 Square Port

Lift Value	Intake Flow CFM	Exhaust Flow CFM
.100"	71	59
.200"	146	113
.300"	231	171
.400"	294	215
.500"	334	240
.600"	363	252
.700"	382	258

Tests conducted at 28" of water (pressure).
Bore size: 4.065"; exhaust with 2" pipe.

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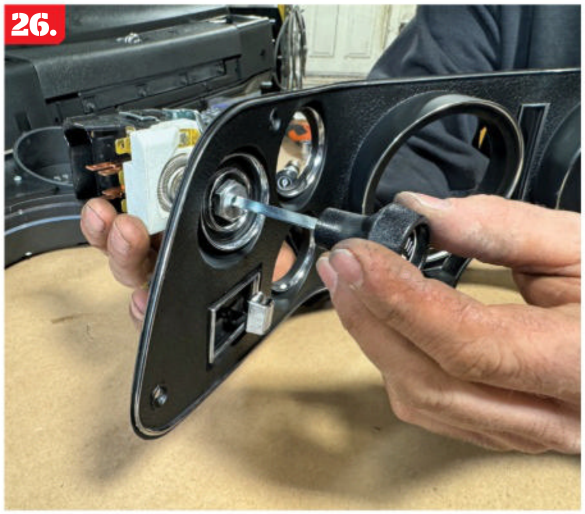


23. The new OER glovebox door was first fitted with a new lock and key set and then installed to the lower dash using hardware from the supplied mounting kit.

24. Vintage Air supplied an updated glovebox that was then installed in place.

25. Finally, the original factory lower dash brace was secured in place, making the unit complete.

26. To begin assembly of the OER dash instrument carrier bezel, O'Brien started with installing a new OER headlight switch followed by the wiper switch and cigarette lighter.

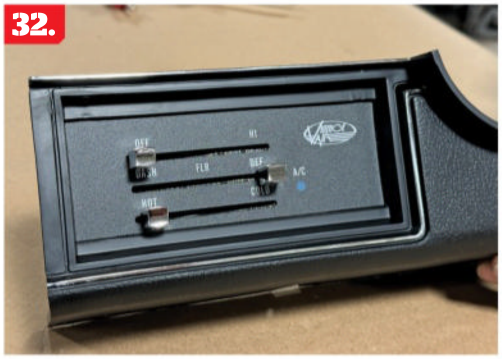
27. The Dakota Digital RTX instrument system was then installed to the upper dash with the supplied original dash hardware showcasing its CNC-machined housing, customizable LED backlighting, and fully electronic internals.

28. The assembled OER dash instrument carrier bezel was then installed to the dash, completing the instrument panel area.

29. O'Brien then carefully lifted the assembled dash and set it into place with the previously installed upper dashpad retainer clips to the top of the cowl, securing them in place with the provided hardware from the AMK kit.

30. Follow by securing the rest of the dash assembly to the firewall support structures.

31-32. Carefully install the Vintage Air SureFit control panel kit to the left side of the OER lower dash steering column cover with the provided hardware. Note the perfect fitment to the dash just like the factory original controls.



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33.

33. O'Brien wrapped up the job by installing the final piece in place with the lower dash steering column cover using the provided hardware.

34. Here you can see just how nice the fitment is of the complete new OER dash with A/C vents, especially when accented by the cutting-edge Dakota Digital RTX instruments and Vintage Air SureFit control panel.

SOURCES

CLASSIC INDUSTRIES
(800) 854-1280
classicindustries.com

DAKOTA DIGITAL
(800) 852-3228
dakotadigital.com

PROCISION INDUSTRIES
(508) 734-6081
procisionindustries.com

VINTAGE AIR
(800) 862-6658
vintageair.com

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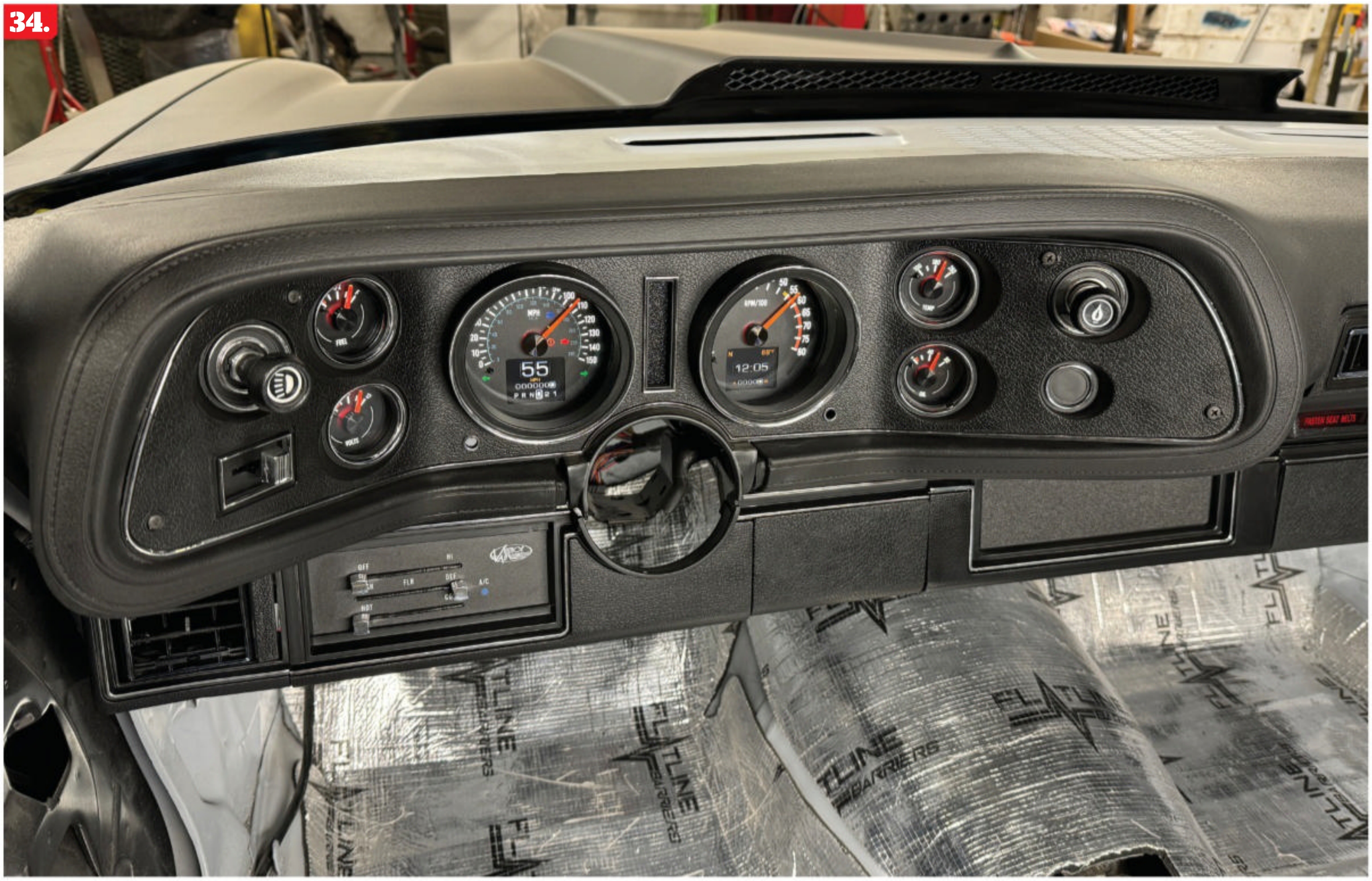

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MISFIT TO *Masterpiece*

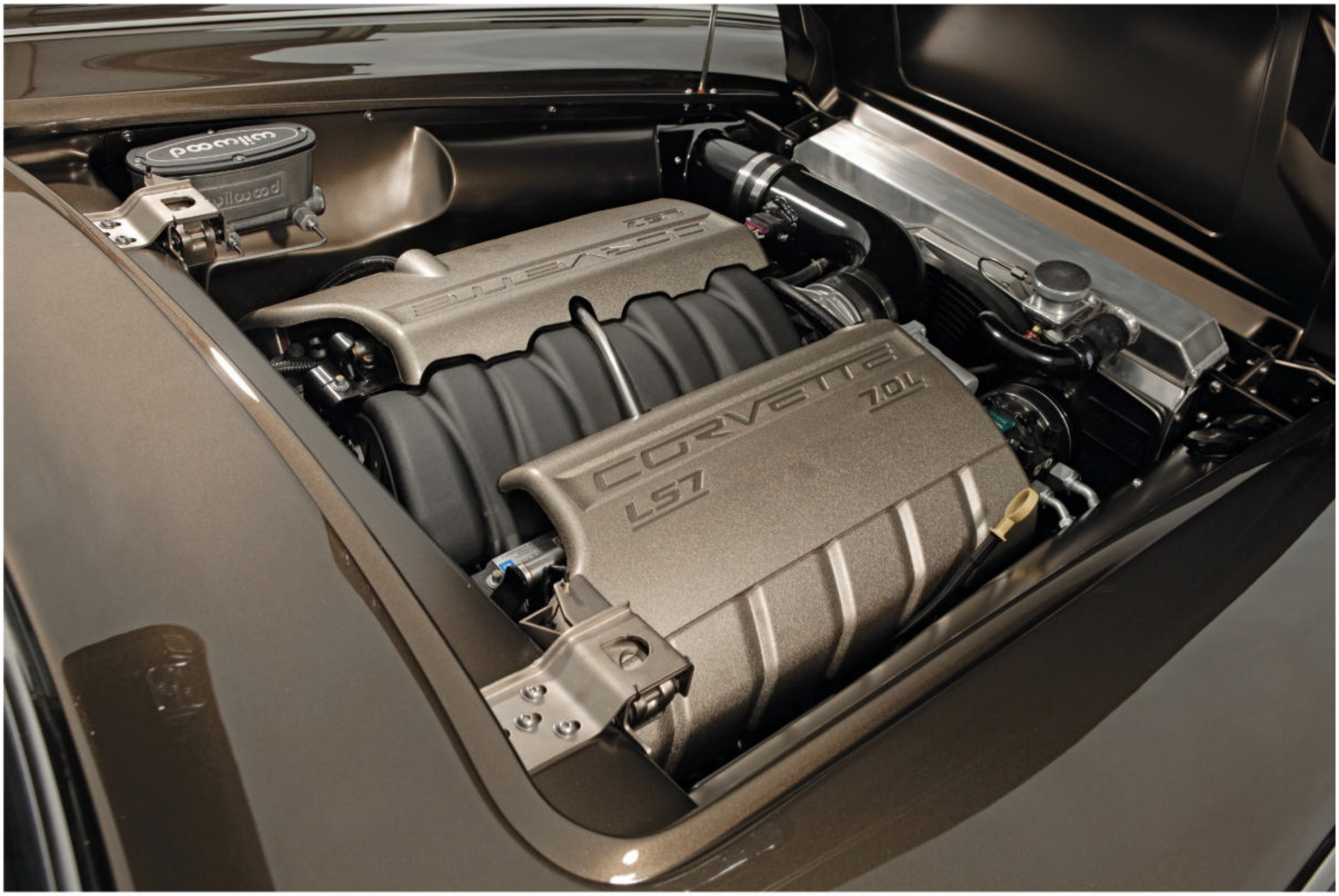
DOMENIC RUFFATTO'S 1959 CORVETTE

Back in 2005 Domenic Ruffatto and his business partner came across a couple of barn-find Corvettes in Kentucky—one a '67 and the other a '59. Domenic mentions there were about 25 other Corvettes stored there, but he was interested in the '59 over all the others, as he preferred collecting cars from the year he was born.

"When I bought the '59, it was a mess, and not much to look at," Domenic recalls. "The body was beat up, the interior was missing, the chassis was rusty, and the car barely rolled. The engine and transmission didn't match, so they weren't worth keeping. But the hard top was there, and that was something."

Domenic hauled the car to a shop in Georgia mainly as convenience as it was nearby a place he was doing business. He laid out a monthly budget and gave the shop's owner the green light to perform the restoration to his specifications. Three years later, he came from his home in Eugene, Oregon, to see the finished product, only to find the car painted the wrong color, riddled with stress cracks in the body, and to make things worse, the shop was closing down and moving to another state, so he was pretty much stuck with poorly restored Corvette.

Domenic's Corvette restoration continued as a decade-long tale of stops and starts by numerous shops overpromising and underdelivering. Fast-forward to 2015 and the car is just a shell with many of the parts missing due to another shop's poor management and outright negligence. Domenic could write a novel on this Corvette and how many failed shops the car has been through. Not ready to give up, in 2018 Domenic made one final attempt to find a reputable shop to take over the restoration of his Corvette—he rang up Jon Mannila at MetalWorks Speed Shop in Eugene, and after a short discussion he brought the car and what pieces were left to have the MetalWorks crew rebuild his dream car.



"MetalWorks has a great reputation for performing some of the finest restorations in the Pacific Northwest, so after many years of working with shady people, I finally felt the car was in the right hands," Domenic confidently says. "[Mannila] told me the car would have to be built from the ground up to eliminate all the poor work performed by the prior shops, and by mid-summer 2022 MetalWorks delivered the car I had always wanted from day one."

Underhood sits a Chevrolet Performance LS7—a 427ci beast putting down 505 hp and 470 lb-ft of torque. It's a high-revving, naturally aspirated homage to American muscle. All that power is routed through a TREMEC T56 six-speed transmission mated to a McLeod twin-disc clutch. A 9-inch rearend with 4.10 gears, an Eaton Truetrac posi, and Strange 31-spline axles ensure pavement-gripping performance.

The Corvette rides on an Art Morrison GT Sport chassis using cutting-edge suspension that includes C6 Corvette spindles up front with Strange Ultra Series double-adjustable coilovers and Detroit Speed rack-and-pinion steering system. Out back, an AME triangulated four-bar setup with matching coilovers delivers a tight, responsive ride. Wilwood brakes with massive 14-inch rotors and six-piston calipers up front and four-piston calipers out back provide excellent stopping power.

The stance is aggressive, courtesy of 18x10 and 19x11 Forgeline RB3C wheels, wrapped in Michelin Pilot Super Sport rubber.

Inside, the car is just as meticulously thought out. Coach Industries leather in mocha with chocolate highlights cover custom door panels, a tailored console, and modified stock seats. Daytona weave carpet adds a vintage touch, while Jon Lind Interiors of Springfield, Oregon, handled installation with show-quality craftsmanship. A Budnik steering wheel, custom shifter, and Dakota Digital instrumentation provide the perfect blend of modern tech and classic vibe.

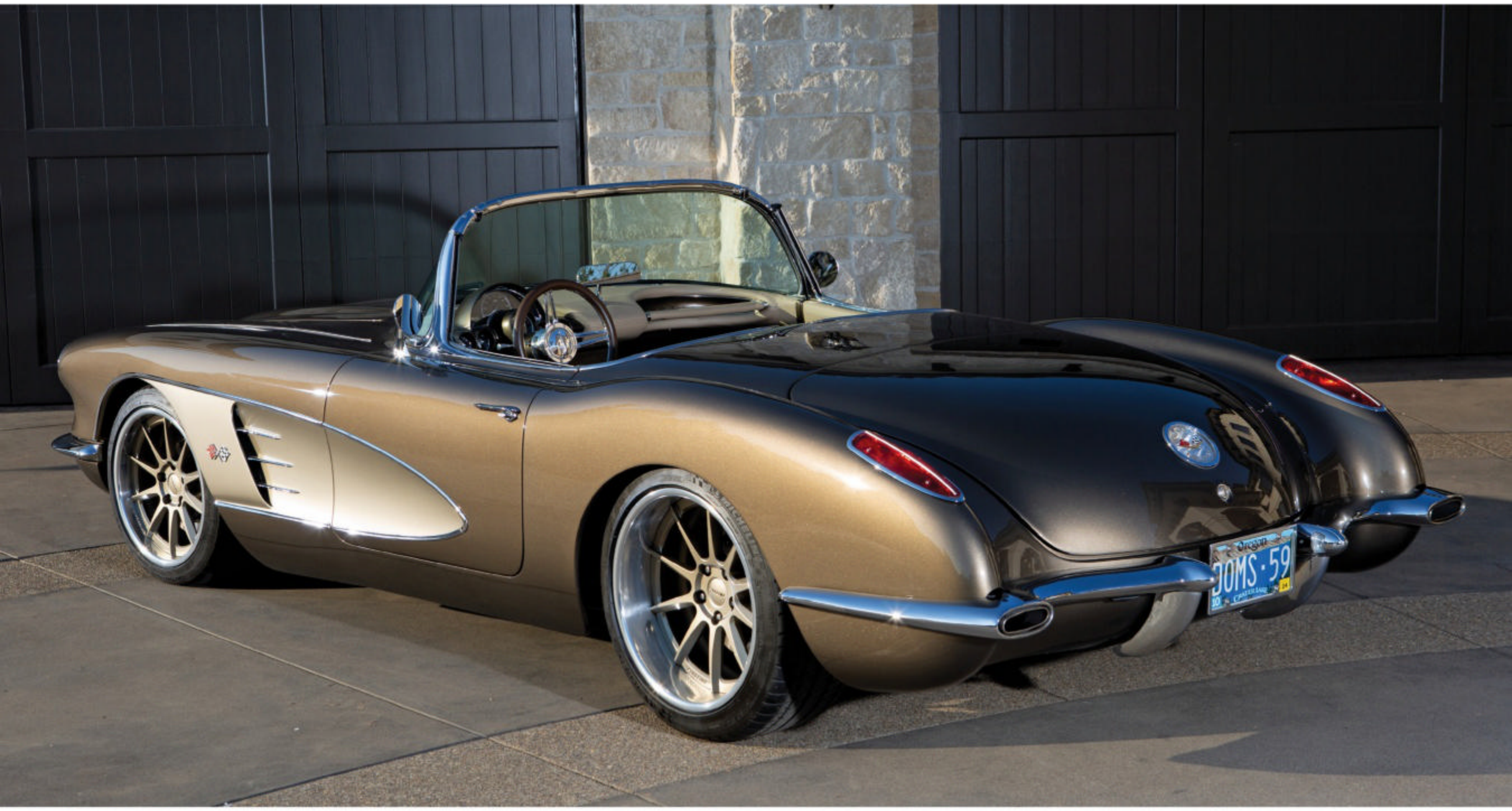
Creature comforts weren't left behind, either. A Vintage Air system keeps the cabin cool, and a full Alpine audio system—head unit, amplifier, speakers, combined with a JL 8-inch subwoofer—makes sure Domenic has just a great audio experience while behind the wheel. All wiring was done with an American Autowire system and every component was integrated flawlessly by the team at MetalWorks.

The MetalWorks crew repaired the less-than-perfect prior attempts of bodyworking by meticulously prepping the shell and refining the body lines to perfection before laying down a brilliant coating of Sikkens Zeus Bronze and Champagne Metallic, merging the car with classic style

and modern aesthetics. The car retains stock bumpers, grille, and signature Corvette curves, combined with a gas door taillight for a custom touch. It's the classic 1959 Corvette you know that now stops, steers, and screams like a high-performance, modern-day hot rod.

After all the starts and stops Domenic and this Corvette have been through, he now has a car with immense power and the utmost reliability. "What the crew at MetalWorks did with my car far exceeded my expectations," Domenic excitedly says. "After so many years of disappointment, just looking at it brings me joy, and driving it is absolutely amazing. The power and handling are far and above anything I could have imagined. It's a car I have a love/hate relationship with, but today it's a car I'm absolutely in love with and look forward to driving every chance I get."

Sometimes it takes longer than expected to get a car just right, but when you do, the payoff is pure gold, or in this case, Zeus Bronze.



TECH ✓

OWNER: Domenic Ruffatto, Eugene, Oregon
VEHICLE: 1959 Chevrolet Corvette

Engine

TYPE: Chevrolet Performance LS7
DISPLACEMENT: 427 ci
COMPRESSION RATIO: 11:1
BORE: 4.125
STROKE: 4.00
BUILDER: GM
ROTATING ASSEMBLY: Forged 4140 crankshaft, I-beam connecting rods, cast-aluminum flat-top pistons
VALVETRAIN: Hydraulic roller lifters, Beehive LS7-specific valvesprings, 1.8 die-cast roller fulcrum rockers
CAMSHAFT: 0.593/0.589 lift, 210/230 duration, 120 degrees LSA
CYLINDER HEADS: 356-T6 aluminum
INDUCTION: GM LS7
FUEL INJECTION: GM 41.74 lb/hr at 58 psi
EXHAUST: Ultimate Headers $1^{7}/_{8}$-inch, stainless 2½-inch exhaust, Flowmaster mufflers
ACCESSORY DRIVE: Wegner Motorsports
ANCILLARIES: Ron Davis aluminum radiator, K&N air cleaner
OUTPUT: 505 hp, 470 lb-ft

Drivetrain

TRANSMISSION: TREMEC T56
CLUTCH: McLeod twin-disc
REAR AXLE: 9-inch rearend housing, 4.10 gears, Detroit Eaton Truetrac posi, Strange 31-spline axles

Chassis

CHASSIS: Art Morrison Enterprises GT Sport
FRONT SUSPENSION: C6 Corvette spindles, Strange Ultra Series double-adjustable coilover shocks, Detroit Speed rack-and-pinion steering
REAR SUSPENSION: AME triangulated four-bar, Strange Ultra Series double-adjustable coilover shocks
BRAKES: Wilwood 14-inch rotors, six-piston calipers front, Wilwood, 14-inch rotors, four-piston calipers rear, Wilwood $^{7}/_{8}$-inch master cylinder, Wilwood proportioning valve

Wheels & Tires

WHEELS: Forgeline RB3C 18x10 front, 19x11 rear
TIRES: Michelin, Pilot Super Sport 275/35R18 front, 305/35R19 rear

Interior

UPHOLSTERY: Coach Industries Leather, Mocha with chocolate highlights
CARPET: Daytona weave
DOOR PANELS: Custom
CONSOLE: Custom
DASH: Custom
INSTALLATION: Jon Lind Interiors (Marcola, OR)
SEATS: Stock modified
STEERING: Budnik steering wheel
PEDALS: Lokar
INSTRUMENTATION: Dakota Digital
WIRING: American Autowire by MetalWorks (Eugene, OR)
HVAC: Vintage Air
HEAD UNIT: Alpine head unit, amplifier, and speakers; JL 8-inch sub
INSTALLATION: MetalWorks

Exterior

BODYWORK AND PAINT: MetalWorks
PAINT BY: Aaron Walker
PAINT: Sikkens Zeus Bronze and Champagne Metallic
PLATING: Ogden Chrome
BODY MODS: Tubbed rear wheelwells, cowl vent deleted, dash speaker deleted, gas door deleted and moved to driver side taillight

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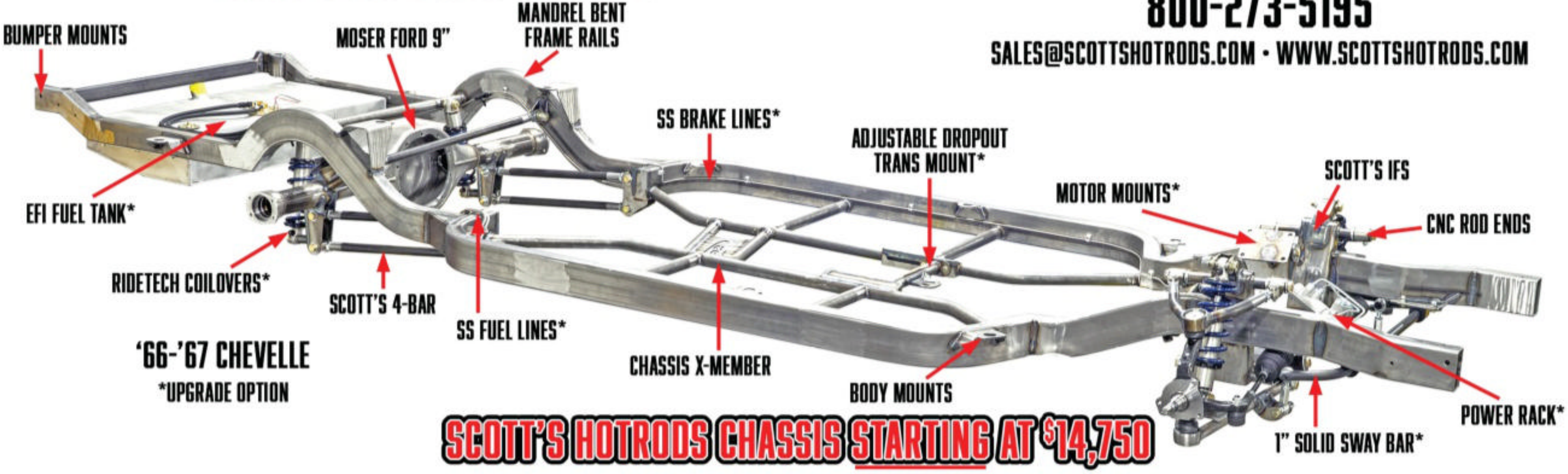
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1.

1. This project was started with the cleanest 1968 Camaro that could be found. It pays to start with a sound car, even knowing from the start that extensive modifications will be made.

1968 CAMARO FLOOR AND FIREWALL INSTALL

FRESH METAL

BY **RON COVELL** IMAGES COURTESY OF **ROADSTER SHOP**

In this article, we're looking at a 1968 Camaro being built at Roadster Shop. As is typical for a high-end build like this, they started with the best-quality donor vehicle that could be found. After fitting the Camaro body onto one of their Fast Track chassis, they did a complete scan of the body, and Mike O'Brien, the lead engineer at Roadster Shop, carefully designed a new floor to fit over the chassis, which kicks up in the rear to clear the independent rear suspension system.

Doing this work in CAD has many advantages. It was a straightforward process to determine the dimensions and shapes for all the panels, and to pinpoint the location of each reinforcing rib in the floor panels. All Roadster Shop chassis are CAD-designed, so that data was called into play to help design the floor, so it fits neatly to both the body and chassis in every critical area.

This digital information was also used to laser-cut guideplates to use on the Pullmax machine to precisely locate and form each rib. Some of the body mounts are located on the new floor, and these areas were heavily reinforced to provide the necessary strength.

An arched crossmember was placed in the chassis just ahead of the independent rear suspension, so an extension was attached to the new floor panel to clear it.

The rear wheelwells were enlarged to accept the wheels and tires selected for this car. Since aftermarket quarter-panels will be installed on this car, the original quarters were removed to provide access for working in this area.

Extra clearance was needed for the shifter on the transmission, so a new sheetmetal construction was added to the top of the original transmission hump. This was CAD designed, laser cut, precision formed, and carefully TIG welded into place.

A new, smooth firewall was fabricated from heavy-gauge sheetmetal and was fitted to the cowl. This will give the car a much cleaner look when the hood is open.

Lots more work is planned for this project, and next time we'll look at how the wheelwell flares were designed and fitted to match the new wheels and tires. You may be surprised to see all the steps involved in this job, where lots of effort was expended to achieve a particular look.

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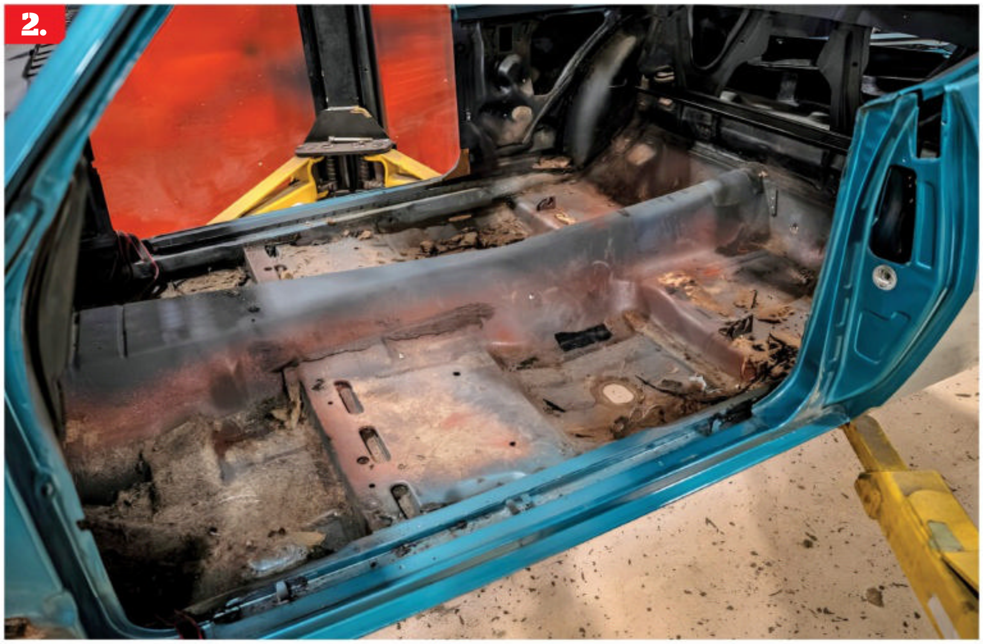


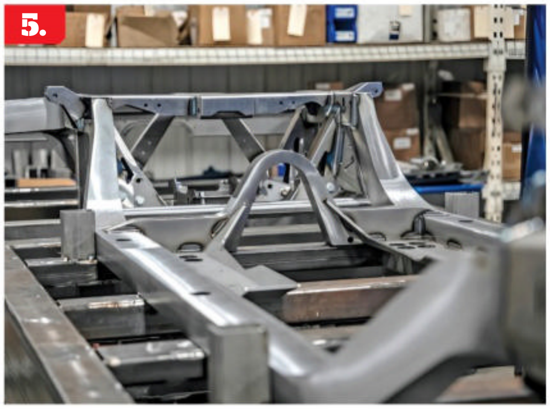
2. Typical rust damage was uncovered after stripping the interior of the car, but the majority of the floor will be replaced, so this was not much of a problem.

3. After the body was removed from the frame, it was completely media blasted inside and out.

3.

4.

5.

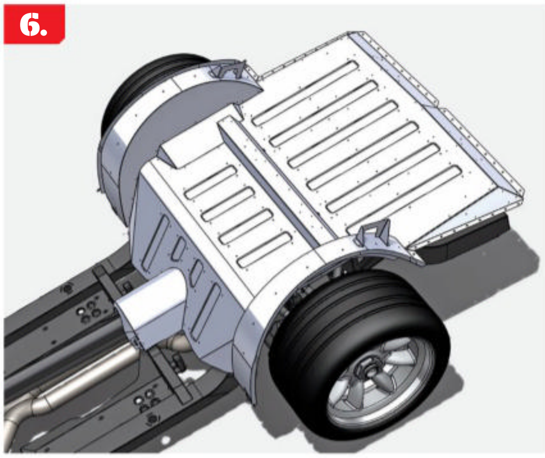


4. The rear portion of the floor was cut out with a Sawzall.

5. The Roadster Shop Fast Track chassis is taller at the rear than the stock chassis to clear the independent rear suspension system. The new floor will be designed to clear the frame and connect solidly to the body.

6. The new floor panels were designed in CAD, and tweaked until they fit both the body and the chassis perfectly. All of the stiffening ribs were designed and positioned at this stage, as well as all the flanges needed for mounting and for strength.

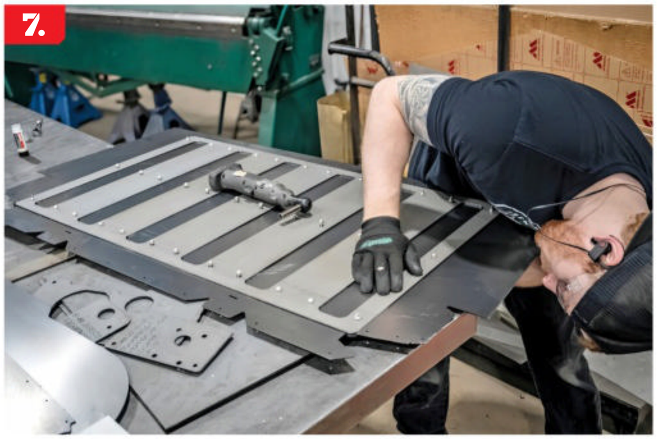
6.



7. Templates were laser-cut to guide the panels in the Pullmax machine as the ribs are formed. The templates are being bolted temporarily into place here.

8. It's a two-person job to guide large, heavy panels like this through the machine.

7.



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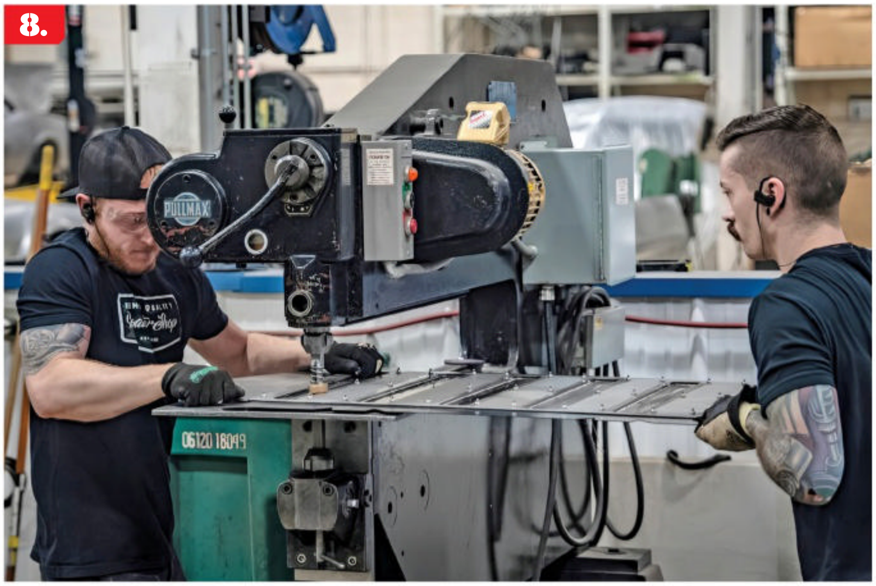

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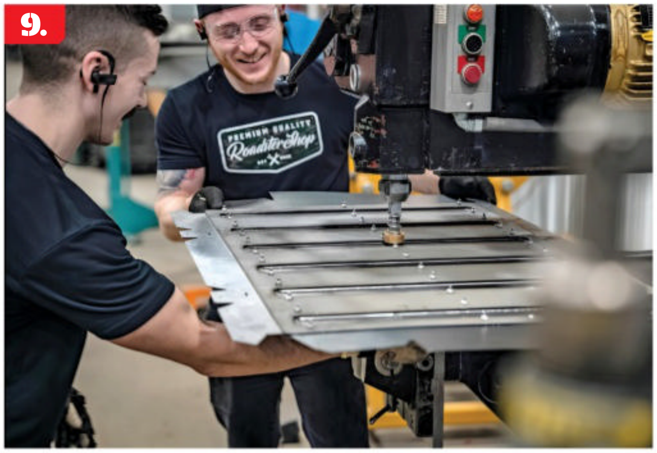
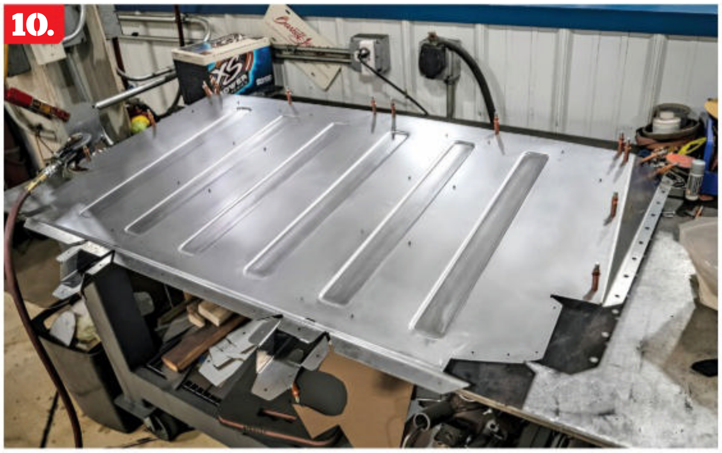


9. The guides must be held snugly against the edges of the tooling as the ribs are formed.

10. Properly done, this process makes a very clean embossed rib, which adds considerable strength to the panel.

10.



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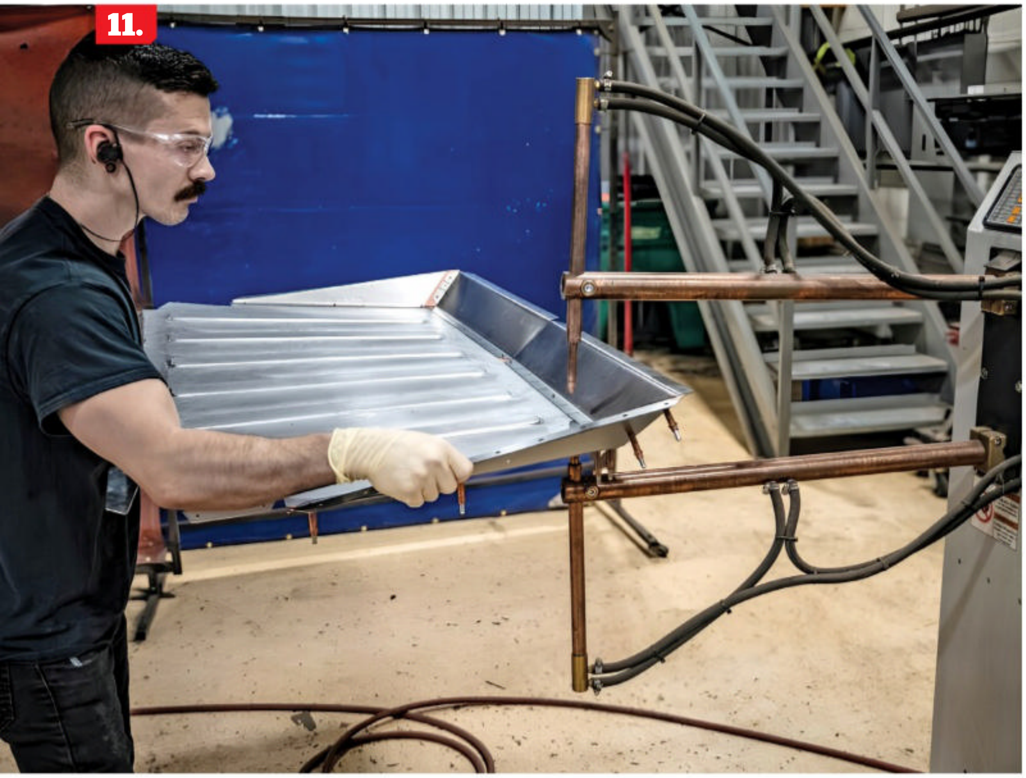

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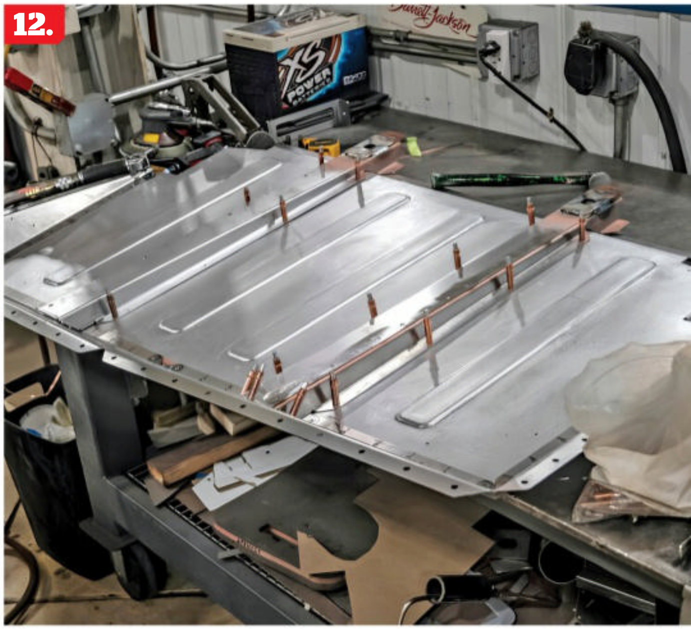
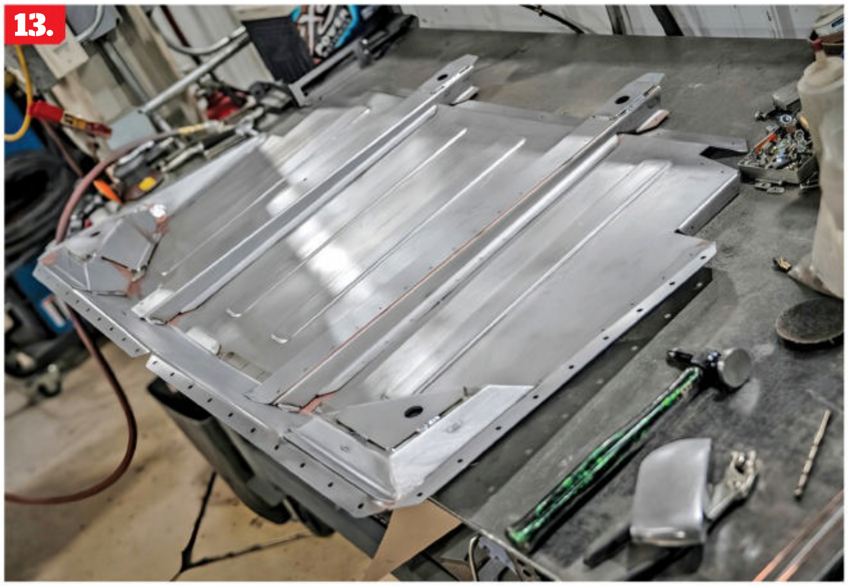


11. Angled flanges were spot welded to the sides and rear edge of the largest panel.

12. Reinforcements are added to the center of the panel to provide extra strength.

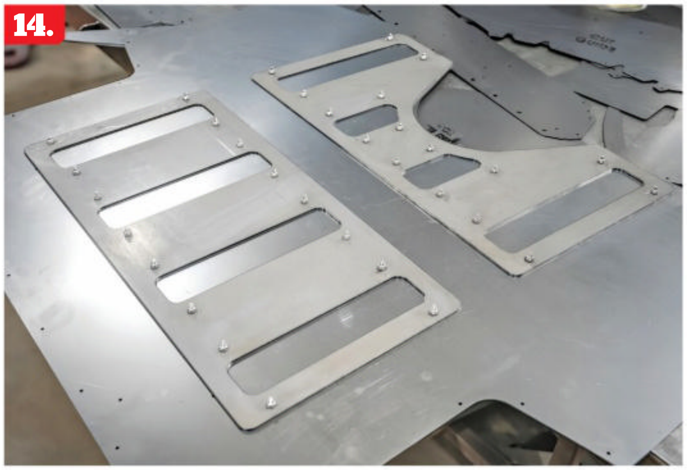
13.



13. Heavily reinforced body mounts are placed in the corners of this panel.

14. Guides for the Pullmax are attached to the panel, which fits over the third member.

14.



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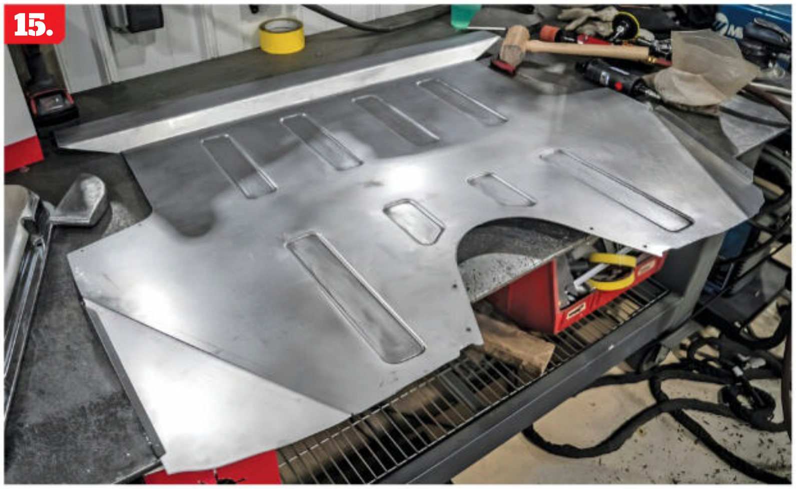

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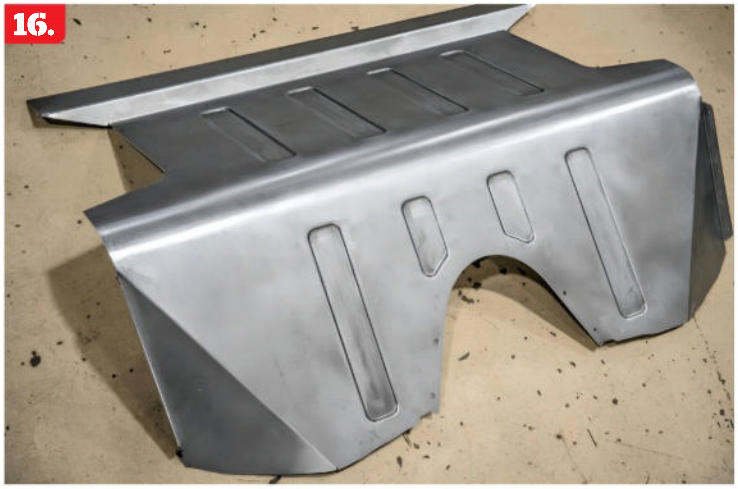

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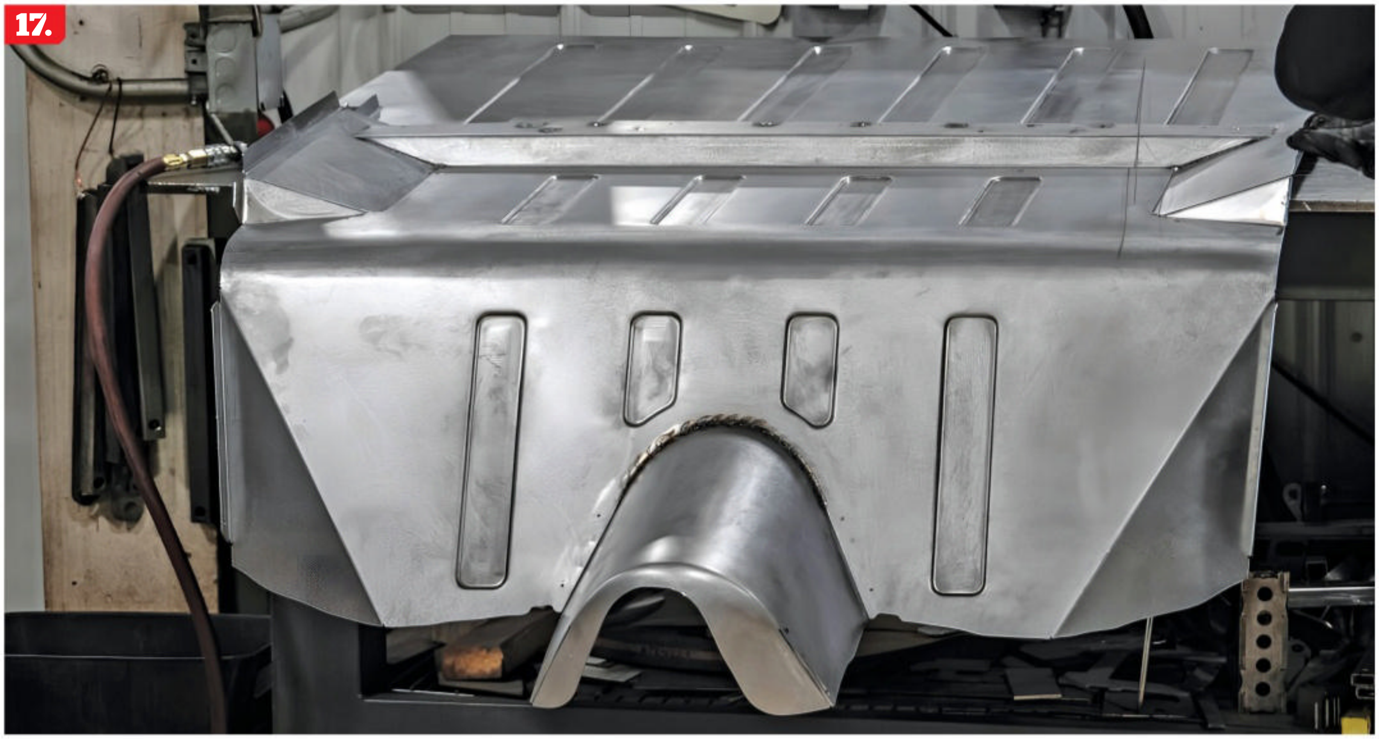
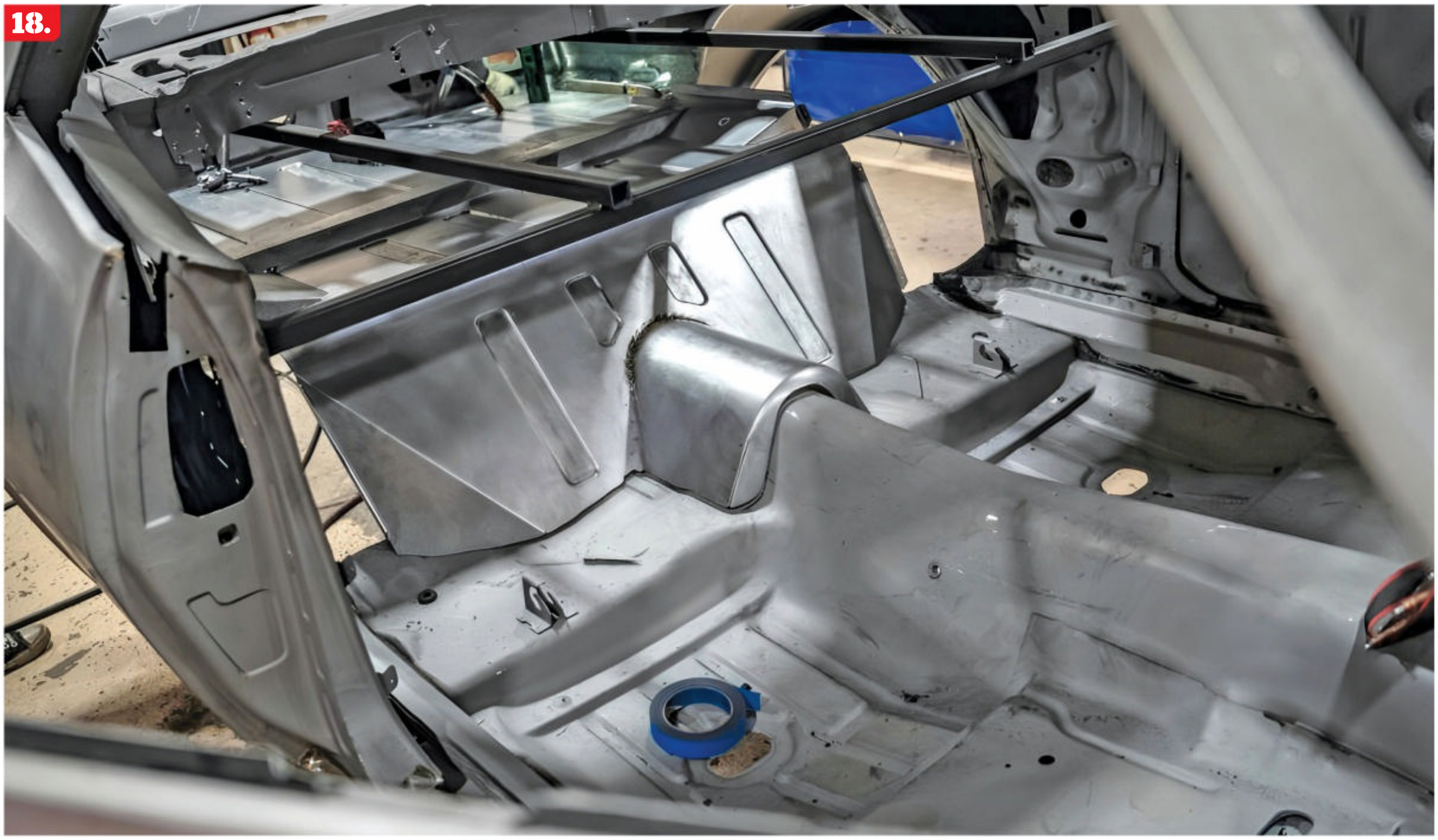


15. The ribs have been fully formed, and a brake was used to make some bends in the panel.

16. A brake with a radius die was used to form the rounded curve near the front of this panel.

17. An extension is added to the front of this panel to go over the driveline and chassis crossmember.

18.



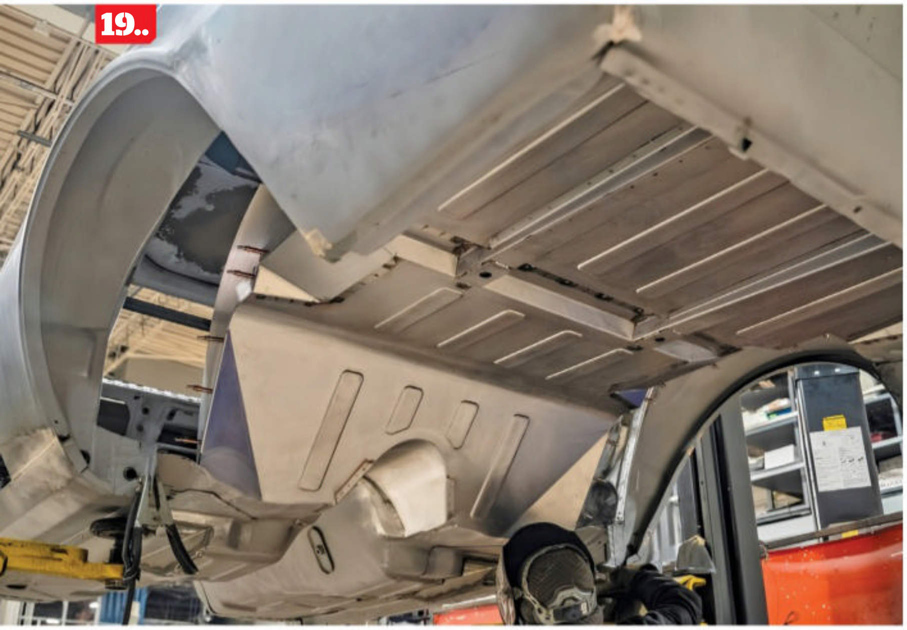
18. The floor panel is test-fitted inside the car.

19. Looking up from the bottom you can see how perfectly all the components fit together.

20. A flat piece of metal is held to the edge of the new floorpan with Clecos. This will be the inner face of the new wheelwell.

21. Since the quarter-panels will be replaced with aftermarket units, they have been removed at this stage to gain access to the wheelwells. The top arch of the wheelwell is being fitted into place here.

19..



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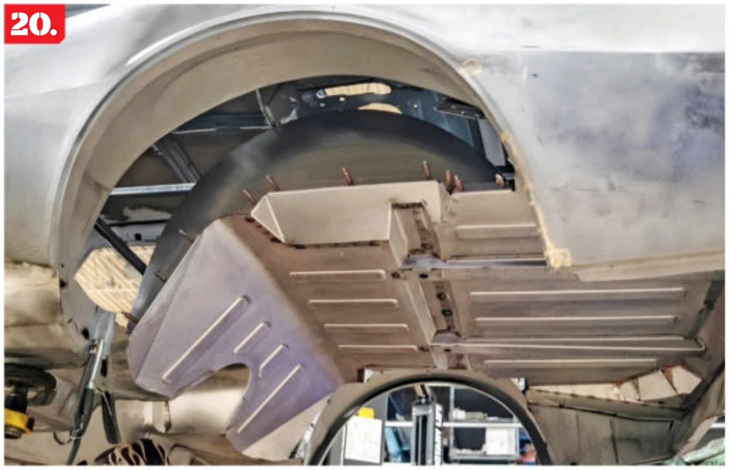

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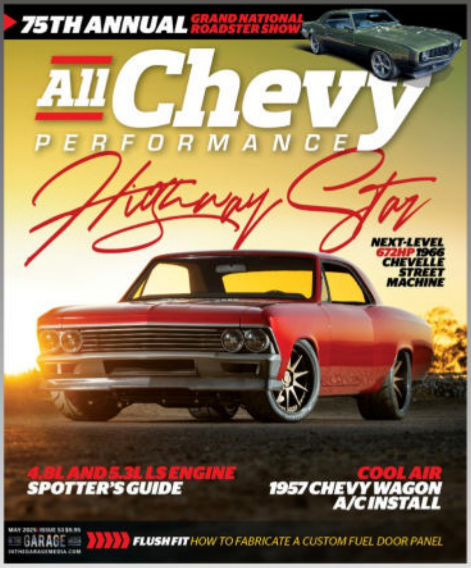
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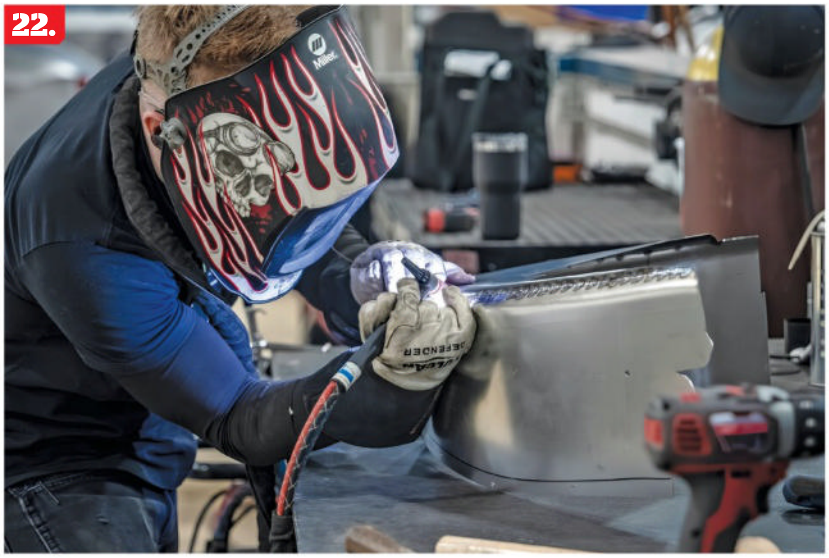

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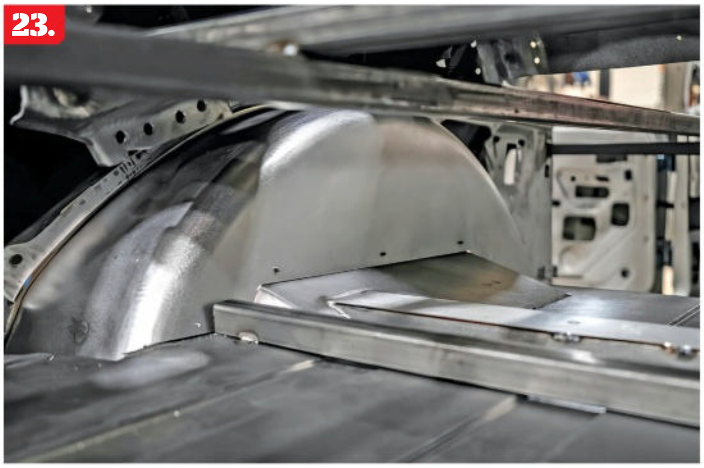

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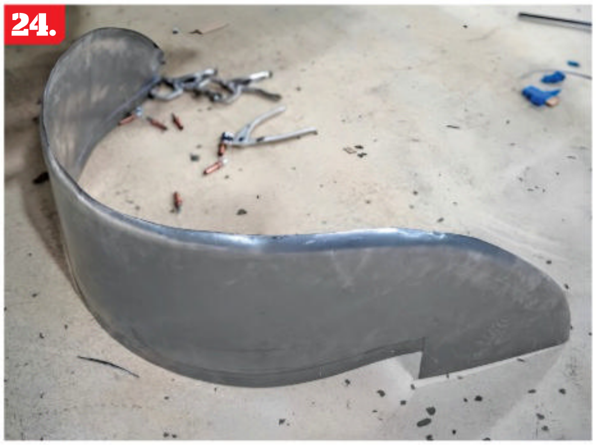


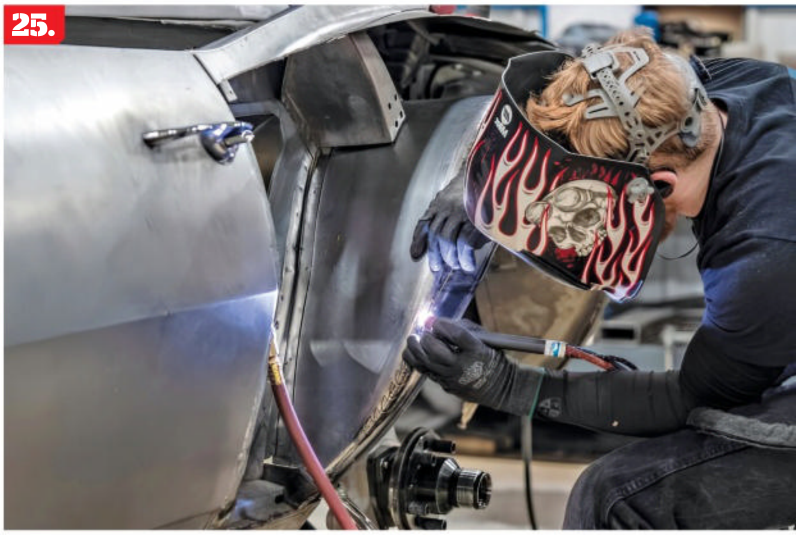
22. On the workbench, the components of the wheelwell are welded together.

23. Clecos hold the new wheelwell in place as the fit is checked.

24. The outer portion of the wheelwell is made as a separate piece.

25. Here the new outer panel is being TIG-welded into place.

25.



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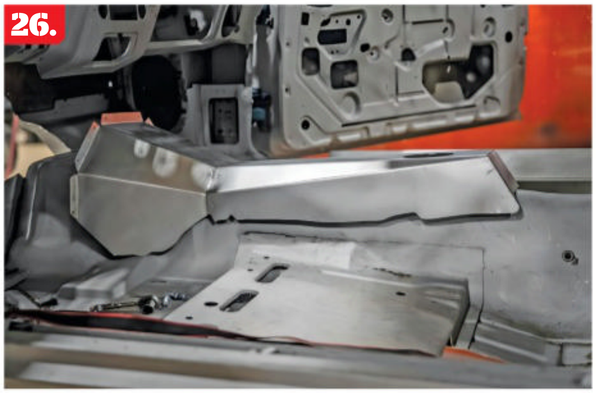

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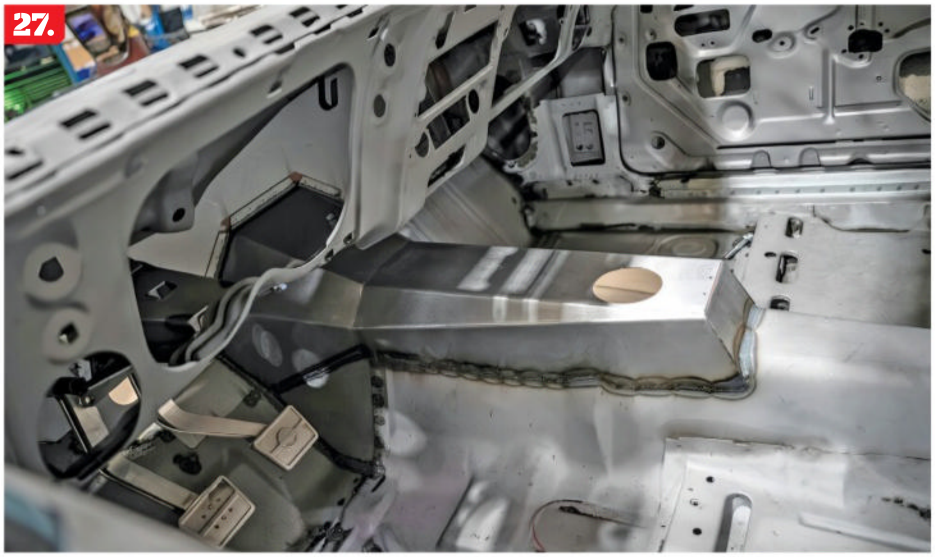

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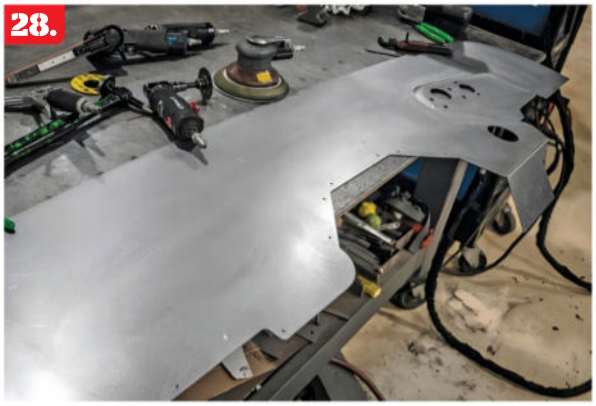

26. A new cover was made for transmission, shifter, and bellhousing. It provides extra clearance where needed.

27. Here the cover is welded to the original front floorpan.

28. A new, flat firewall was fabricated from heavy-gauge sheetmetal.

29. The firewall is held with Clecos as the fit is checked against the body. This clean, smooth firewall will really improve the appearance of the engine compartment.

29.

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BY **JOE GREEVES** IMAGES BY **THE AUTHOR**

PRO TOURING NOVAS NEVER GO OUT OF STYLE

MIKE HOUSE'S PRO TOURING 1968 NOVA

The time it takes to complete a world-class vehicle is rarely predictable. Goals evolve, technology advances, and costs rise. Mike House knows this well. A retired firefighter from Minnesota now living in Jacksonville, Florida, Mike has been a car enthusiast since his teenage years. His passion for Novas led to his latest build—a stunning 1968 Nova.

Purchased in New Mexico, every panel and body part is original except for the custom cowl induction hood. Once in his garage, the car was completely disassembled, marking the start of an ambitious Pro Touring build.

Mike began the project in 2008 with a vision to create a unique car that departed from the typical Pro Touring mold. Knowing the Nova's unibody lacked rigidity, his first task was reinforcing the structure. He welded 2x3 rectangular steel tubing into the rocker panels from wheelwell to wheelwell, then added crossmembers for strength. Additional 1.5-inch round tubing connected the new chassis to the Detroit Speed & Engineering front subframe. Mini-tubs, custom inner fenders, a new radiator core support, and a flat trunk floor solidified the foundation.

At the 5½-year mark, Mike moved to Florida and enlisted L&L Street Rods in Kasson, Minnesota, to complete the custom metalwork. Collaborating with lead craftsman Kegan Lubahn, they mapped out an extensive list of modifications. "If it's metal, there's a good possibility it's been hand formed to fit perfectly," Mike says. Lubahn's expertise in design, shaping, and welding played a crucial role in the car's flawless execution.

The modifications were numerous but always focused on subtle elegance. Highlights include rocker panel extensions, custom front and rear valances, a subtle trunk spoiler, and exhaust outlets framing the license plate. The modern grille and headlight combination, reimagined bumpers, and functional hood vents further enhance the design. The extended cowl induction hood reaches the windshield edge, secured by custom carbon-fiber hinges designed by Mike and fabricated by L&L, along with Ringbrothers hood pins.

Minnesota
NOVA-X
COLLECTOR

Interior upgrades include L&L teaming up with Jay's Upholstery in Kasson. The custom dash houses a Dakota Digital competition analog gauge cluster, a Kenwood eXcelon multimedia receiver, and a motorized Power Control Solutions keypad for shifting the 4L60E transmission. The Borgeson steering column with JOES Racing quick-release hub holds a Billet Specialties black anodized wheel, featuring the car's name, "NOVA X," on the center cap.

Procar by Scat Elite bucket seats were modified and upholstered in Relicate leather and Alcantara with unique seat backs concealing shoulder harness retractors. The custom center console includes a wireless phone charger, aluminum cup holders, A/C controls, and additional switches. Custom door panels feature backlit acrylic inserts, while Cadillac CTS-V door latches were adapted into the sills. A fully custom back seat complements the front, while a one-piece fiberglass headliner and German square-weave carpet complete the look.

The trunk is just as refined. A pop-up gas cap fills the twin fuel tanks, while upholstered side panels attach via earth magnets for easy access to the battery, storage compartments, and stereo. The trunk-mounted 1,800-watt, five-channel Infinity Reference amp powers 6x9 rear speakers, 5-inch door speakers, and a 10-inch subwoofer. The Kenwood eXcelon multimedia receiver provides Bluetooth, Apple CarPlay, and HD Radio.

TECH ✓

OWNER: Mike House, Jacksonville, Florida
VEHICLE: 1968 Chevy Nova

Engine

TYPE: Chevrolet Performance LS3
DISPLACEMENT: 376 ci
COMPRESSION RATIO: 10.7:1
BORE: 4.065
STROKE: 3.622
CYLINDER HEADS: Aluminum L92-style port, "as cast" with 68cc chambers
ROTATING ASSEMBLY: Nodular iron crankshaft, powdered metal connecting rods, Hypereutectic aluminum alloy pistons
CAMSHAFT: TPIS ZL12 hydraulic roller, 228/231 duration, 0.580/0.590-inch lift, 112 LSA
INDUCTION: Top Street Performance (TSP) fabricated sheet aluminum intake
EXHAUST: Doug Thorley Tri-Y fifth-gen Camaro long-tube headers (modified), 3-inch exhaust, Black Widow mufflers
ANCILLARIES: Synister Products front drive system (modified by owner), Davies Craig electric water pump, Comp Cams custom valve covers, custom air filter housing, custom twin aluminum fuel tanks, custom four-core radiator, SPAL dual 16-inch electric fans, OPTIMA YELLOWTOP battery
OUTPUT: 550 hp and 425 lb-ft

Drivetrain

TRANSMISSION: Modified GM 4L60E with all HD parts
TRANSMISSION CONTROLLER: PCS TCM 2800 controller
SHIFTER: PCS push button keypad shifter
TORQUE CONVERTER: TCI StreetFighter 3,000 rpm stall
REAR AXLE: Mark Williams Modular 12-bolt, 30-spline Master Line axles, 3.50 gears
DRIVESHAFT: Denny's Driveshafts 3-inch 1350 series

Chassis

FRONT SUSPENSION: DSE Hydroformed subframe, AFCO double-adjustable coilover shocks
REAR SUSPENSION: DSE QUADRALink rear with AFCO double-adjustable coilover shocks
BRAKES: Corvette C6 Z06 six-piston calipers front, four-piston calipers rear, Wilwood dual master cylinders and Tru-Bar brake pedal

Wheels & Tires

WHEELS: Boze Injected 9.5x18 front, 12x19 rear
TIRES: General Exclaim UHP 265/35R18 front, 325/30R19 rear

Interior

UPHOLSTERY: Relicate leather and Alcantara with green accent stitching, German weave carpet
INSTALLATION: L&L Street Rods and Jay's Upholstery
SEATS: Customized Procar by Scat Elite Series with custom upholstery, handmade rear seats with custom upholstery
DOOR PANELS: Custom sheetmetal with upholstered door inserts over acrylic plastic, backlit with LEDs, Cadillac CTS-V door latches
HEADLINER: One-piece fiberglass covered with Alcantara and leather
DASH: Custom sheetmetal dash by L&L Street Rods
CENTER CONSOLE: Custom sheetmetal by L&L Street Rods
INSTRUMENTATION: Dakota Digital HDX 2200 competition analog cluster
PEDALS: Wilwood
STEREO SYSTEM: Kenwood receiver, Infinity speakers and amplifier
HVAC: Vintage Air Gen IV system, Restomod air vents
WIRING SYSTEM: American Autowire Highway 22 Series
STEERING: Borgeson race style with quick JOES Racing release steering wheel hub, Billet Specialties Formula steering wheel
SHIFTER: PCS TCM 2800 push button keypad shifting controller

Exterior

BODYWORK AND PAINT: L&L Street Rods
PAINT: PPG Next Gen Waterborne with PPG VC5700 clearcoat, GM Satin Steel Metallic, GM Shadow Gray, Porsche Acid Green
HOOD: AMD 2-inch cowl hood
GRILLE: Custom bent and formed aluminum grille
BUMPERS: Factory, narrowed and tucked
FRONT AND REAR VALANCES: Custom sheetmetal by L&L Street Rods
ROCKER PANELS: Rocker panel extensions between the wheelwells, behind the wheelwells, and across the back of the car
EXHAUST TIPS: Custom by L&L Street Rods
TAILLIGHTS: Fesler billet aluminum LED
HEADLIGHTS: Dapper Lighting LED, Speaker LED driving lights
WHEELTUBS: DSE
DOOR HANDLES: Lokar billet 12V electric push door handles
GLASS: Flush-mounted
SIDE MIRRORS: Billet Rides rectangular billet aluminum mirrors

While design modifications were underway, the powertrain and suspension were carefully planned. From the start, speed and performance were priorities. Mike chose a naturally aspirated LS3 crate engine, balancing reliability and horsepower. The 6.2L engine received an upgraded rotating assembly, TPIS hydraulic roller cam, and a Top Street Performance sheetmetal intake with a large rectangular K&N filter for optimal airflow. A detailed metal engine cover integrates the paint- and bodywork into the engine bay.

Cooling is handled by a four-core radiator with twin SPAL 16-inch fans. The 550hp LS pairs well with a modified 4L60E automatic transmission featuring a 3,000 stall TCI Street Fighter torque converter. A Denny's 3-inch driveshaft connects to a Mark Williams 12-bolt rear axle. Exhaust duties are handled by Doug Thorley Tri-Y headers, 3-inch stainless pipes, Black Widow Race Venom mufflers, and massive exhaust tips. The car's distinctive rumble makes it unmistakable.

Harnessing the LS3's power required cutting-edge suspension components. The front features a Detroit Speed hydroformed subframe and suspension, while the rear is supported by DSE's QUADRALink setup. AFCO double-adjustable coilovers on both ends control body roll during spirited driving situations.

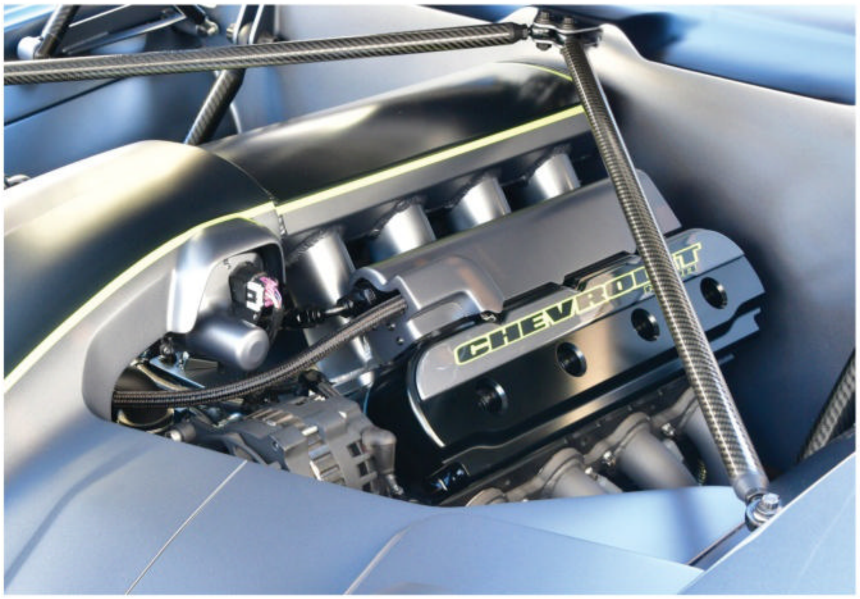
Braking is equally robust, with Corvette C6 Z06 14-inch rotors and six-piston calipers up front and four-piston calipers in the rear. Wilwood provided a reverse swing brake pedal and dual master cylinder with a balance bar, all mounted under the dash.

Wheel selection was critical for both aesthetics and performance. Mike opted for Boze Injected forged billet three-piece wheels—18-inch up front and 19-inch in the rear—wrapped in General Exclaim UHP tires for exceptional grip. The result is a car with razor-sharp handling that can escape trouble as quickly as its 550 hp can get Mike into.

After a decade in the making, the final touches were in sight. L&L Street Rods completed the custom bodywork before finishing the car in GM Satin Steel Metallic, with a center stripe in GM Shadow Gray Metallic. Porsche Acid Green accents trace the stripe, adding a bold touch.

The finished Nova X is a joy to drive and a showstopper wherever it goes. Stylish, comfortable, and deceptively quick, it strikes the perfect balance between daily usability and adrenaline-fueled thrills. "I've always said I was building a car I had no business building," Mike admits. "But thanks to L&L Street Rods, I now own what I think is the most remarkable 1968 Nova around."

It's easy to imagine the thrill Mike felt the first time he slipped behind the wheel after 15 years of work. At its debut car show, the Nova X took home Best of Show—a well-deserved recognition for an extraordinary build.



BY **TOMMY LEE BYRD** IMAGES BY **THE AUTHOR**

Rod Run

POWERFUL CHEVY COMBINATIONS LINE THE STREETS OF PIGEON FORGE, TENNESSEE

Some car shows simply can't be contained by barriers, and the Pigeon Forge Rod Run is a prime example. This event occurs twice a year, with a Spring event in April and a Fall event in September, and it's always packed with hot rods, muscle cars, and wild Pro Street combinations. The show itself is held at the LeConte Center, a beautiful convention center, nestled in the foothills of the Smoky Mountains. It features a great selection of customized cars and trucks, as well as a huge turnout of vendors and special attractions. It features indoor and outdoor areas and is always well attended.

Even though the show is popular, the real "wow" factor typically comes from the miles of cars lining the streets of Pigeon Forge. This town is set up nicely for cruising, but the traffic gets thick on Saturday, so most folks cruise earlier in the week. The show starts on Thursday, and many people arrive days in advance to get things started and enjoy the lowkey atmosphere before the masses roll into town. Thousands of cars fill every local parking lot, and all of the hotels are lined with cool cars, making it quite a spectacle as you work your way through town.

This year's Spring Rod Run was plagued with bad weather, with rain on Thursday and Friday, followed by unseasonably cool temperatures on Saturday. The event still drew a big crowd, and we enjoyed checking out all the wild combinations. In our highlights, you'll see some high-horsepower street cars, all-out customs, and several old-school Pro Street setups that'll turn back the clocks.

The next Pigeon Forge Rod Run is September 11-13, 2025, so book your hotel room and make it happen. This event has something for every Chevy enthusiast, so check out rodrun-pigeonforge.com for more info.

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